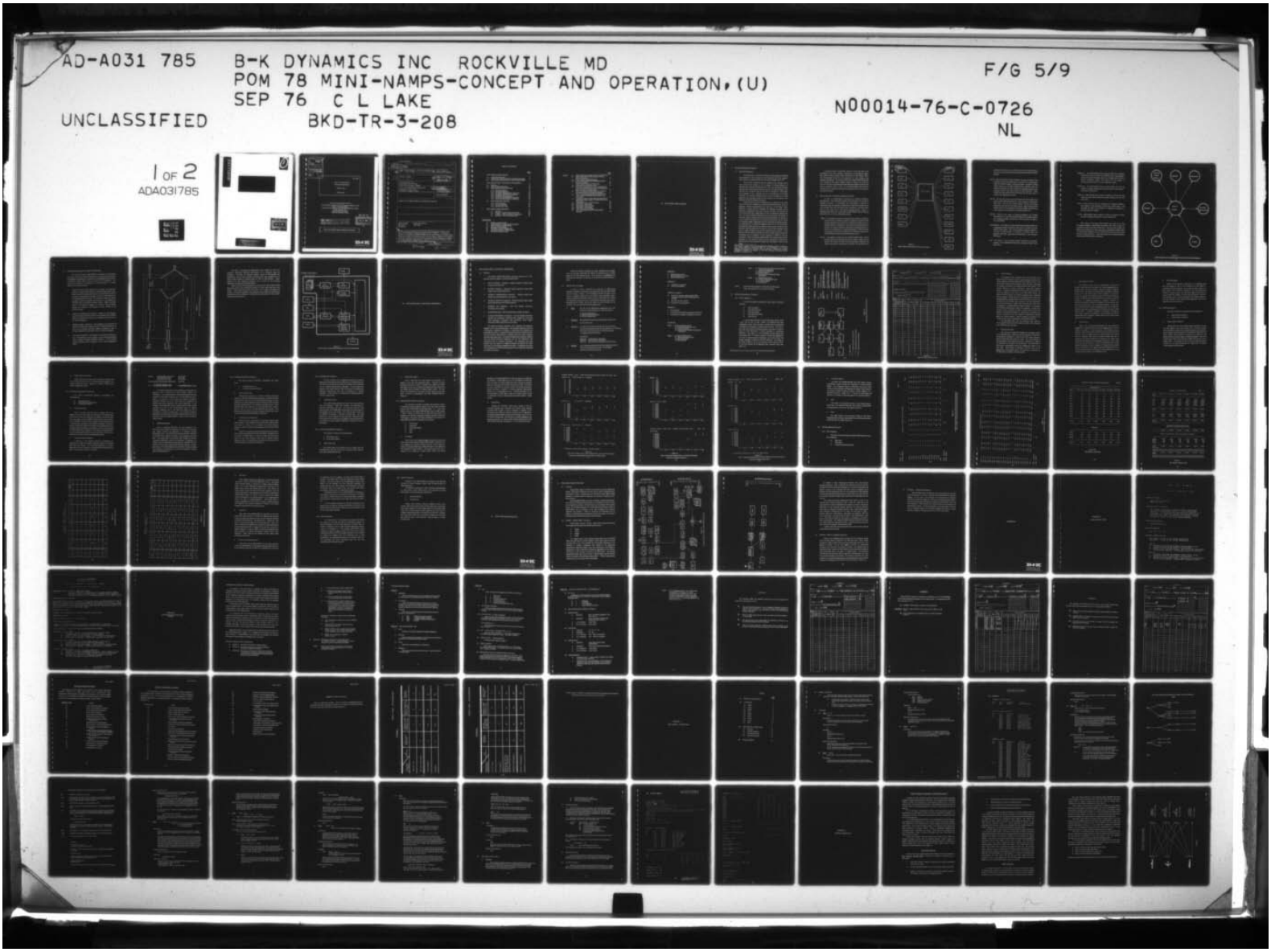
AD-A031 785 B-K DYNAMICS INC ROCKVILLE MD F/G 5/9
POM 78 MINI-NAMPS-CONCEPT AND OPERATION,(U)
SEP 76 C L LAKE
UNCLASSIFIED BKD-TR-3-208 N00014-76-C-0726
NL

1 OF 2
ADA031785



ADA031785

DDC
RECEIVED
NOV 9 1976
D

DISTRIBUTION STATEMENT A
Approved for public release;
Distribution Unlimited

ACCESSION for
NTIS White Section
DDC Buff Section
UNANNOUNCED
JUSTIFICATION
BY
DISTRIBUTION/AVAILABILITY CODES
Dist. AVAIL. and/or SPECIAL
A

TR-3-208

POM - 78 MINI-NAMPS
Concept and Operation

30 Sept 1976

Christa Lake

This report was prepared under the
Navy Manpower Research and Development Program of the
Office of Naval Research
under Contract N00014-76-C-0726 and N00014-72-C-0526
by B-K Dynamics, Inc.
15825 Shady Grove Road
Rockville, Maryland 20850

DDC
RECEIVED
NOV 9 1976
D

COPY AVAILABLE TO DDC DOES NOT
PERMIT FULLY LEGIBLE PRODUCTION

Approved for public release; distribution unlimited

B-K
DYNAMICS, INC.

UNCLASSIFIED

REPORT DOCUMENTATION PAGE

1 REPORT NUMBER: BKD-TR-3-208	2 GOVT ACCESSION NO. / 3 RECIPIENT'S CATALOG NUMBER
4 TITLE (and Subtitle): POM 78 MINI-NAMPS - Concept and Operation	5 TYPE OF REPORT & PERIOD COVERED: Non-Technical System Description; 6 PERFORMING ORG. REPORT NUMBER
7 AUTHOR(s): Christa L. Lake	8 CONTRACT OR GRANT NUMBER(s): N00014-76-C-0726, N00014-72-C-0526
9 PERFORMING ORGANIZATION NAME AND ADDRESS: B-K Dynamics, Inc. 15825 Shady Grove Road Rockville, Maryland 20850	10 PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11 CONTROLLING OFFICE NAME AND ADDRESS: Office of Naval Research (Code 434) Department of the Navy Arlington, Virginia 22217	12 REPORT DATE: 30 Sept 1976; 13 NUMBER OF PAGES: 126
14 MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)	15 SECURITY CLASS. (of this report): UNCLASSIFIED; 15a DECLASSIFICATION/DOWNGRADING SCHEDULE

16 DISTRIBUTION STATEMENT (of this Report)

Approved for Public Release; Distribution Unlimited

17 DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18 SUPPLEMENTARY NOTES

19 KEY WORDS (Continue on reverse side if necessary and identify by block number)

MINI-NAMPS
Manpower
Personnel
POM Assessment
INC/DEC

20 ABSTRACT (Continue on reverse side if necessary and identify by block number)

This document presents the concepts and operational features of the Mini Naval Manpower Planning System (MINI-NAMPS). It discusses briefly the evolution of MINI-NAMPS and its relationship to various Naval Offices and other ADP Systems; and in more detail, outlines the system's concepts, functions, and its role in providing Military Manpower requirement and personnel information in support of the annual Program Objectives Memorandum (POM) assessment process.

DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 65 IS OBSOLETE S/N 0102-014-6601

UNCLASSIFIED
SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

387 575

TABLE OF CONTENTS

		Page
1.	POM 78 MINI-NAMPS OVERVIEW	1
1.1	Historical Perspective	1
1.2	Relationship with the Manpower Planning Community	2
1.3	Additions and Enhancements to POM 77 MINI-NAMPS	7
2.	POM 78 MINI-NAMPS - FUNCTIONAL DESCRIPTION	11
2.1	Summary	11
2.2	MINI-NAMPS Terminology	12
2.3	MINI-NAMPS Subsystem Functions	14
2.3.1	DELTA Subsystem	14
2.3.2	SUPPORT Subsystem	19
2.3.3	ENLISTED REQUIREMENT Subsystem	20
2.3.4	ENLISTED INVENTORY Subsystem	22
2.3.5	ENLISTED NEC Subsystem	23
2.3.6	OFFICER REQUIREMENT Subsystem	23
2.3.7	BASE REPORTS/DISPLAY Subsystem	24
2.4	Software/Hardware Overview	29
2.4.1	Data Categories	29
2.4.2	Software Summary	37
2.4.3	Hardware Summary	38
3.	POM 78 MINI-NAMPS OPERATION	39
3.1	Overview	39
3.2	PHASE I - "START BASE" Generation	39
3.3	PHASE II - DELTA Feasibility Assessment	42
3.4	PHASE III - DELTA Implementation	43

APPENDICES

A) SAMPLE COVER PAGES
B) MANPOWER DATA COLLECTION SYSTEM
C) DELTA QUERY -USER'S GUIDE
D) SUPPORT GENERATION
E) SPONSOR BILLET DISTRIBUTION
F) PLOTTING SYSTEM - USER'S GUIDE
G) DETAILED SYSTEM FLOW

			Page
FIGURE	1.1	MINI-NAMPS Relationship to Other Naval Offices	3
	1.2	MINI-NAMPS and Its Relationship with Other Navy EDP Systems	6
	1.3	POM 77 MINI-NAMPS Subsystems	8
	1.4	POM 78 MINI-NAMPS System/Subsystem/Interface Relationships	10
	1.5	IDMS Defined SCHEMA of DELTAGG	15
	1.6	Manpower Data Collection Form	16
	2.1	Plot of Unc. Requirements, Const. Requirements, and Projected Personnel Inventory by Rating/Paygrade and OPNAV Rating Groups	26
	2.2	Plot of Constrained Requirements vs. Projected Personnel Inventory by Rating and Sponsor	27
	2.3	Plot of Constrained Requirements Before POM/ After POM and Projected Personnel Inventory After POM	28
	2.4	Comparison Report Detail Page, Showing Enlisted Requirement Base, EA001 vs. Projected Inventory Base IA002.	30
	2.5	Comparison Report - Summary Page	31
	2.6	ERP Report, Detail Page	32
	2.7	ERP Report, Summary Page	33
	2.8	ORP Report, Detail Page	34
	2.9	ORP Report, Summary Page	35
	3.1	The Three Phases of POM 78 MINI-NAMPS Operation	40

1.0 POM 78 MINI-NAMPS OVERVIEW

BOK
DYNAMICS, INC.
15825 SHADY GROVE ROAD
ROCKVILLE, MARYLAND 20850

1. POM 78 MINI-NAMPS OVERVIEW

1.1 Historical Perspective

The concept of an overall Navy Manpower Planning System (NAMPS) had its genesis in 1973 in response to the recognition that Navy manpower costs amounted to approximately 50% of the Navy's Budget for FY 73[1].

This concept included the further recognition that although various ADP systems were already in use in support of various segments of Manpower and Personnel Planning functions, there was insufficient interface between these various systems and there were as yet many processes whose efficiency and timeliness could be improved by automation. Additionally there appeared to be a pressing need for a re-evaluation of the whole Manpower and Personnel Planning process toward the goals of avoiding duplication and achieving consistency and integration of all functions in the Manpower Personnel Planning Community.

Namps was born of this re-evaluation and is conceived as the future vehicle for the Navy Manpower and Personnel Planning process. Since its beginning, NAMPS implementation has made use, to the fullest extent possible, of existing systems throughout the planning community; where previously unrecognized needs were identified, analysis was initiated and many systems have been implemented or are in the process of implementation. The overall NAMPS development has and still requires the analysis of numerous decision making paths and their interrelationship, the identification of relevant information and its eventual systemization, and the ability to incorporate design changes generated by completed and ongoing analysis. Its implementation is necessarily staggered over time as well as distance. This situation, coupled with the necessity for prompt action to improve Navy Manpower planning, generated the need for a tool whose usefulness would grow as various modules of the overall NAMPS become available. It was essential that the nature and function of such a module would accommodate interfacing with or integration of other modules of NAMPS as they are completed. Toward this purpose MINI-NAMPS was conceived and has been developed by B-K Dynamics under the joint sponsorship of ONR,OP-01, PERS-2,and the Naval Personnel Research and Development Center in San Diego.

---

[1]Memorandum, Deputy Chief of Naval Operations (Manpower (Op-01), 13 February 1973, Serial 10049P10, "RDT&E Funding for the Development of the Navy Manpower Planning System (NAMPS)", with one enclosure, "Proposal for Advance Development Research in Support of the Navy Manpower Planning System (NAMPS)", 15 January 1973.

Its primary focus of application during FY 75-76 has been on the coordination of the Navy manpower requirements of individual and aggregate sponsor program changes during development of the Program Objectives Memorandum (POM) and the assessment of their manpower and personnel implications. The intense utilization of MINI-NAMPS during POM 77/78 assessment has helped manpower planners identify and clarify the nature of the Navy's manpower/personnel allocation problems and thus take action to alleviate some of them. As such MINI-NAMPS has shown that NAMPS will be a powerful and effective analytical tool for the Manpower planning community.

1.2 Relationship with the Manpower Planning Community

In order for MINI-NAMPS to function as an effective Manpower-Planning tool it must effectively interact with members of the Manpower Planning community. To accomplish this, MINI-NAMPS is designed to accept data input and guidance criterion from various Naval offices and, in turn, provides them with information that contributes to the accomplishment of their tasks and to their decision making process. Figure 1.1 graphically illustrates their relationship to MINI-NAMPS, and the following summarizes their role in the operational process.

MRCP: The Manpower Resources Coordination Panel (MRCP) coordinates, and prioritizes all manpower requests, evaluates and identifies those deemed appropriate for inclusion to the Manpower CPAM, present to decision makers an assessment of the ability of Personnel planners to provide the required manpower, and provide training information to OP-99 for its assessment of training implication of POM decisions. As such they constitute the primary user of information generated by MINI-NAMPS and evaluated and synthesized by OP-121.

OP-121: The sponsor and major user of the MINI-NAMPS system. OP-121 provides guidance and specifications for the design; requests various system runs, selects the desired control parameters, identifies the desired input/output specifications, facilitates the distribution and

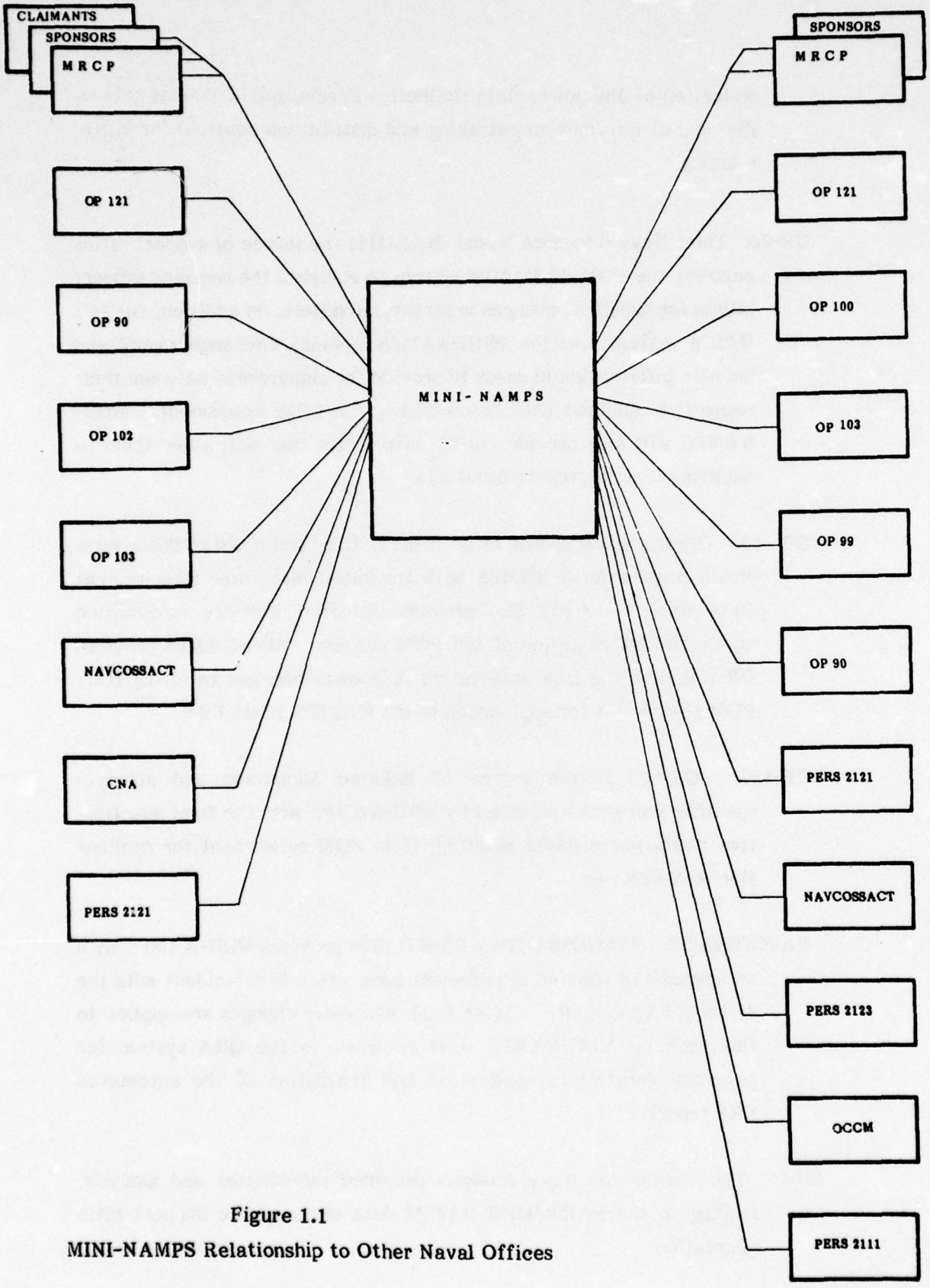


Figure 1.1
MINI-NAMPS Relationship to Other Naval Offices

collection of Manpower Data Collection Forms, and in general acts as the overall information gathering and distribtuion centroid for MINI-NAMPS.

OP-90: Their Navy Resource Model (NARM) is the source of support ratios enabling the POM-78 NAMPS system to compute the required support billets for specified changes in structured billets. In addition, OP-90's NARM system and the MINI-NAMPS systems exchange check and balance information in order to provide for coincidence between their respective Enlisted data bases during the POM assessment. MINI-NAMPS will also provide OP-90 with ratios that will allow them to qualitize their aggregate billet file.

OP-102: OP-102 is the source of both the Officer and Enlisted Billet Files which provide MINI-NAMPS with its initial Manpower Requirement Data Base. OP-102 also provides selected Activity information during the latter period of the POM process. MINI-NAMPS provides OP-100 with the final qualitative manpower changes resulting from POM assessment for application to the MAPMIS Billet File.

OP-103: OP-103 is the source of Enlisted Manpower end strength specification and is provided by MINI-NAMPS with the final quantitative manpower changes resulting from POM assessment for application to MAFIOSO.

NAVCOSSACT: NAVCOSSACT's QRA SYSTEM provides MINI-NAMPS with an aggregated enlisted requirement base which is coincident with the January FYDP MARP. After final manpower changes are applied to this base by MINI-NAMPS it is returned to the QRA system for paygrade constraints application and generation of the automated ERP report.

CNA: The Center for Navy Analysis provided information and analysis, leading to the NARM/MINI-NAMPS data exchange for Support ratio generation.

PERS-2121: The MINI-NAMPS System provides PERS 2121 Manpower Requirements for use as input to the ADSTAP model. They provide in return the Enlisted Inventory projections, enabling MINI-NAMPS to provide comparison reports and queries for the purpose of determining the feasibility of various Manpower changes.

PERS-2123: The MINI-NAMPS system provides PERS 2123 with the manpower changes resulting from POM assessment for generating C-school and A-school plans.

PERS 2111: MINI-NAMPS makes available to PERS 2111 the Officer Base before and after Officer Manpower changes resulting from the POM assessment.

OP-99: OP-99 will determine the implications of manpower changes in their analysis of the generated C-school and A-school plans. Thus providing the MRCP with feedback for judging the feasibility of specified Manpower changes.

OCCM: MINI-NAMPS makes available to OCCM the approved Civilian Manpower changes resulting from the POM assessment.

Since many of the above Naval Offices also make use of Data Processing techniques, MINI-NAMPS interaction with them provides for automated interface with their ADP Systems. These are shown in Figure 1.2 along with an indication of their input/output relationship to MINI-NAMPS. A more detailed identification of the data derived from or provided to these systems is found in Section 2 where the function of the various subsystems that comprise MINI-NAMPS are discussed.

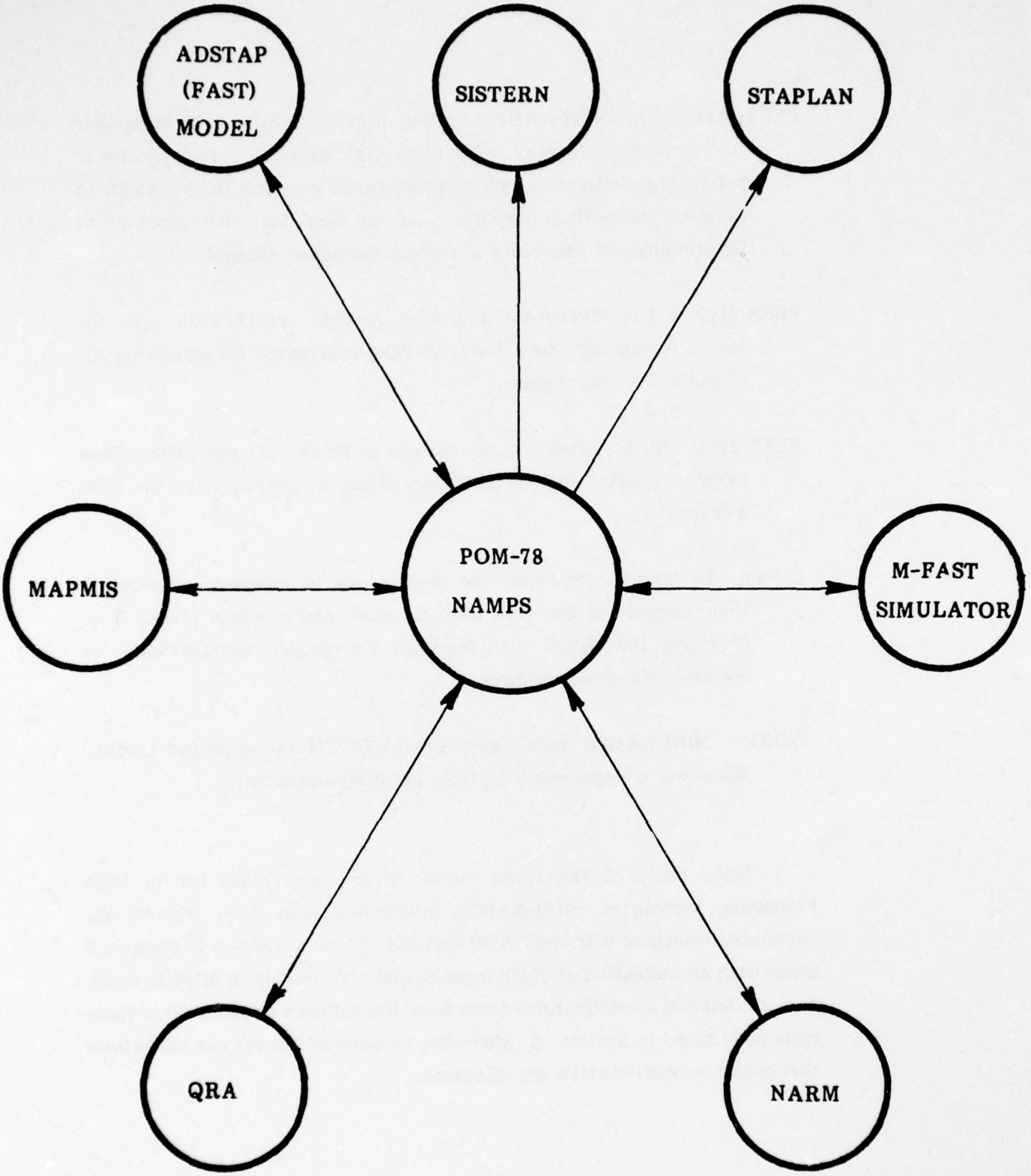


Figure 1.2

MINI-NAMPS And Its Relationship With Other Navy EDP Systems

1.3 Additions and Enhancements to POM-77 MINI-NAMPS

The focus of POM-77 MINI-NAMPS was confined to the Enlisted community. Qualitative Enlisted Manpower was expressed in terms of rating and paygrade, and quantitative manpower per rating/paygrade was stored to the Program Element Sponsor level by Fiscal Year 77 through 81. The system was comprised of 4 subsystems, as shown in Figure 1.3, whose functions are summarized below:

- Requirements Formatting, Updating and Adjusting - This subsystem contained modules which loaded the Enlisted Requirements Base, updated manpower changes generated by sponsors during the POM-77 assessment, and applied end strength and top six, ratio contraints to the resulting requirements base. The manpower changes were stored by sponsor, rating and paygrade, and INC/DEC #. No capability for INC/DEC query or automated selection existed. Support overhead, based on the manpower changes, was estimated over all enlisted ratings as a function of the Sponsor who was affected by the manpower change.

- Inventory, Formatting, and Interface - Modules of this subsystem loaded the Enlisted Inventory which was projected by the ADSTAP system, and formatted the data so as to coincide with the format of the Enlisted Manpower.

- Manpower Report Generation - This subsystem was comprised of modules whose functions included all POM 77-MINI-NAMPS reports as well as an interactive plotting capability allowing the user to compare manpower and inventory in terms of rating and paygrade.

- Cost Report Generation - The modules of this subsystem allowed the user to interactively cost the quality of the manpower associated with a sponsors submitted manpower changes. It also provided several additional reports indicating costs at various aggregation levels.

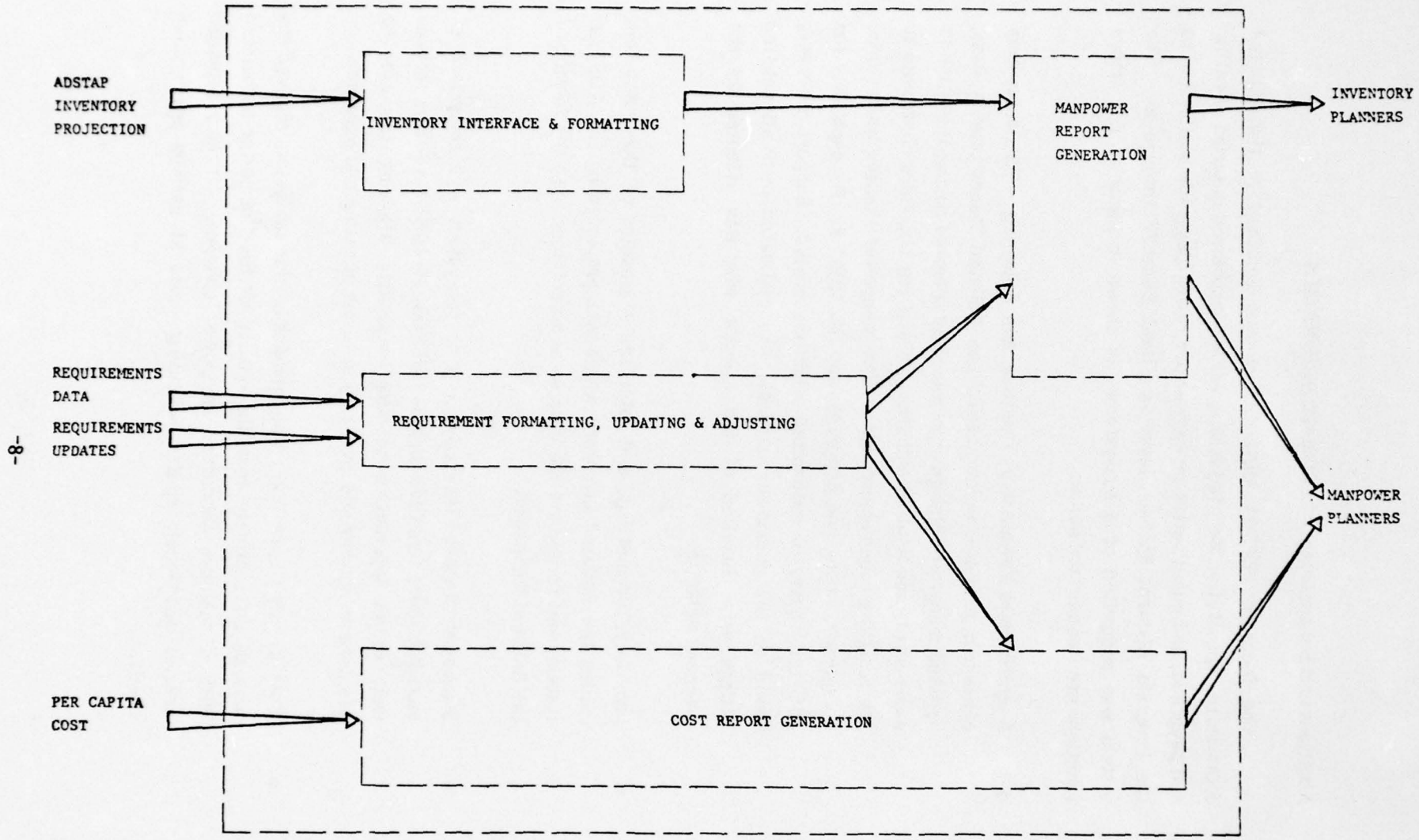


Figure 1.3

POM 77 MINI-NAMPS Subsystems

The POM 77 planning and programming cycle marked the first time manpower requirement feasibility determination in the evaluative mode was attempted. For POM 78 a greatly improved version of MINI-NAMPS was implemented. The first three modules summarized above were incorporated to the fullest extent possible for implementation of POM 78 MINI-NAMPS. These, together with four additional subsystems and a number of new interface capabilities, comprise POM-78 MINI-NAMPS.

Figure 1.4 shows the new subsystems implemented for POM 78 MINI-NAMPS along with several newly integrated interfaces to other operational Navy ADP systems. Basic improvements have been made in data storage methodology and transfer, in interactive capability, and integrated data tracking and identification standards have been established. A detailed system description of POM 78 MINI-NAMPS is found in section 2.

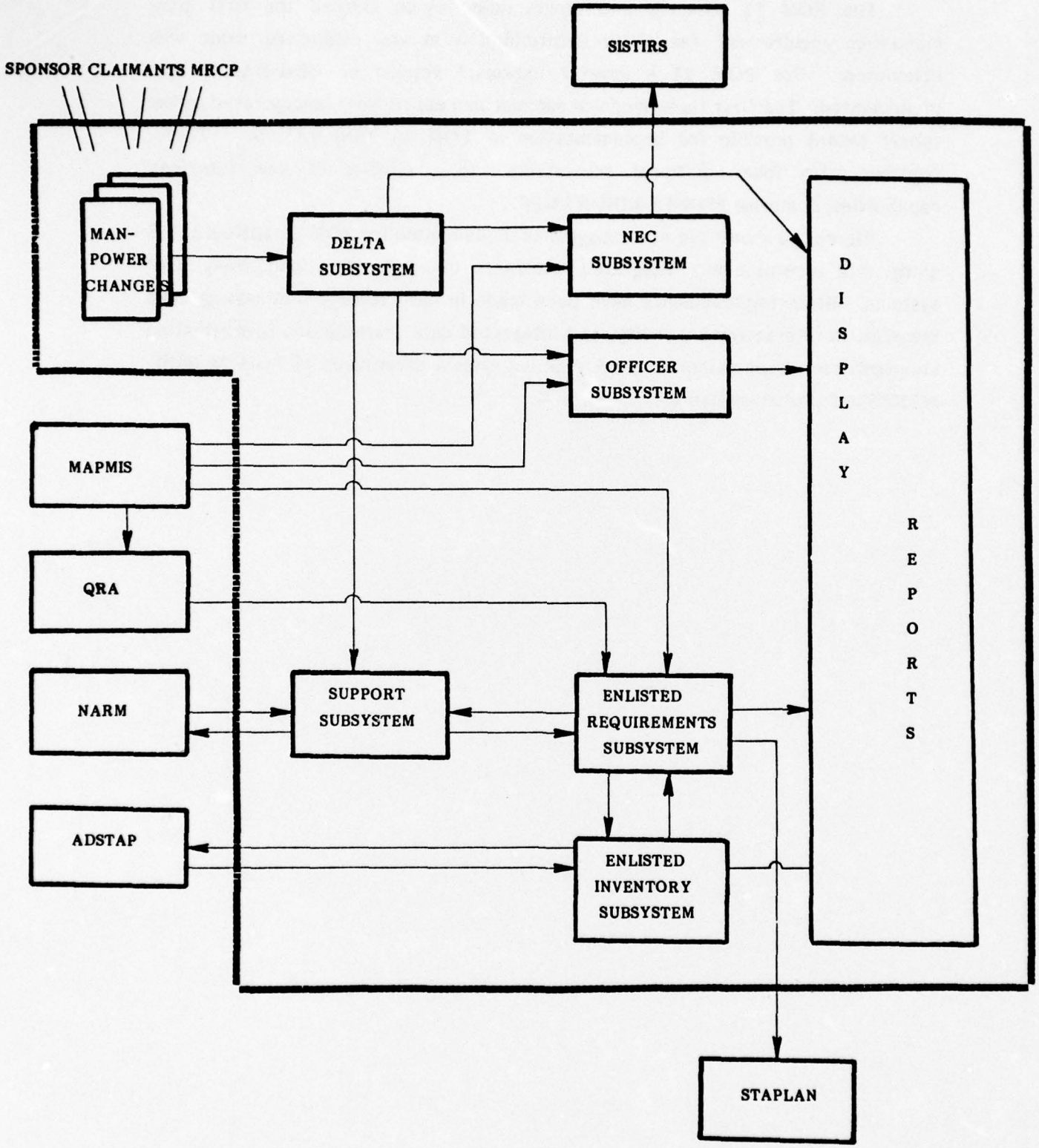


Figure 1.4
POM 78 MINI-NAMPS System/Subsystem/Interface Relationships

2.0 POM 78 MINI-NAMPS - FUNCTIONAL DESCRIPTION

B✪K
DYNAMICS, INC.
15825 SHADY GROVE ROAD
ROCKVILLE, MARYLAND 20850

2. POM 78 MINI-NAMPS - FUNCTIONAL DESCRIPTION

2.1 Summary

The POM-78 MINI-NAMPS System presently comprises the 7 Subsystems indicated in Figure 1.4 and summarized below:

- DELTA Subsystem - Manpower changes collection, editing, query, selection, and extraction.
- SUPPORT Subsystem - Qualitized support generation using NARM support ratios and selected DELTA.
- ENLISTED REQUIREMENTS Subsystem - Enlisted Requirement loading, constraints application, and update.
- ENLISTED INVENTORY Subsystem - Enlisted Inventory Base loading, sponsor distribution, and M-FAST projection.
- ENLISTED NEC Subsystem - NEC Base loading, comparison, formating, and extraction.
- OFFICER Subsystem - Officer Requirements loading, and update.
- BASE REPORTS/DISPLAY Subsystem - Data base loading, interactive plotting and comparison, Numerical Base Comparison, Automated ERP generation, automated ORP generation, PLOT Report generation, BASE identification and tracking.

The Delta and Support Subsystem deal exclusively with manpower changes to the all Navy requirements; the remaining subsystems deal with the following: application of changes to a requirement base, application of endstrength constraints, paygrade and rating constraints, inventory projection and interface, determination of training implication, Base comparison and Base report generation. The Enlisted Requirements subsystem together with the Enlisted Inventory subsystems and the NEC Subsystems deal specifically with the Enlisted community. This constitutes the major problem area with respect to manpower planning and therefore the major focus point of the manpower planning community. Consequently the extent of its development in MINI-NAMPS is greater than the subsystem supporting the Officer community.

During the System's activation all seven subsystems are utilized; some are exercised repeatedly and others are exercised only at certain stages of the POM planning process - all are, however, interdependent and therefore each subsystem is necessary to the function of MINI-NAMPS as a whole.

2.2 MINI-NAMPS Terminology

In order to better understand the exposition of MINI-NAMPS subsystem functions in section 2.3, a familiarization with the MINI-NAMPS data terminology is helpful. This terminology consists of dynamic terms which are logically structured so as to define a data aggregates' source, content, and applied constraints. These terms are used as names for specific data aggregates both by the user in conversation, interactive query and in specifying report content, and by the system for data identification and tracking. The terms and their definition appear below:

- BASE — Any one of the following data aggregates (data sets) which are stored seperately, but in the same format:

  1) Enlisted Requirements
  2) Enlisted Projected Inventory
  3) Officer Requirements

- DELTAGG — The collection of all increments/decrements loaded into the IDMS Data Base.

- DELTAXX — A collection of increments/decrements whose collection criterion was stipulated by OP-121 (see section 2.4.2 - Delta data, for further information on DELTA content) and which is a flagged subset of DELTAGG.

  EXAMPLES:

  DELTA01 - All INC/DEC's - first pass.
  DELTA20 - All INC/DEC's (DELTAGG).
  DELTA21 - DELTA20 with selected INC/DEC's deleted.

- BASE ID — The 5 character alphanumeric code that uniquely identifies a Base to the system and its users. The positional characters are defined as follows:

POSITION 1:

E Enlisted Requirements
I Enlisted Projected Inventory
O Officer Requirements

POSITION 2:

A 1 February starting Base
B 1 March starting Base
.
.

POSITION 3 through 4:

00 No DELTA has been applied (except PBS's which are included in the starting base from OP-102).

01 DELTA01 has been applied.

XX DELTAXX has been applied.

POSITION 5:

0 No constraints

1 Authorized end strength and paygrade constraints

2 Alternate end strength and paygrade constraints
.
.

EXAMPLES:

EA001 = a) Enlisted Requirements
b) 1 February starting base used
c) No DELTA applied
d) Authorized end strength and paygrade constraints

EB200 = a) Enlisted Requirements
b) 1 March starting base used
c) DELTA20 applied
d) Unconstrained

IA201 = a) Enlisted Projected Inventory/Requirements used to feed projection:
b) 1 February starting base
c) DELTA20 applied
d) Authorized end strength and topsix constrained

OA000 = a) Officer Requirements
b) 1 February starting base used
c) No DELTA applied
d) Unconstrained

NOTE: Base ID definitions appear on all reports referencing any BASE. See Appendix A for a sample cover page.

2.3 MINI-NAMPS Subsystem Functions *

2.3.1 DELTA Subsystem

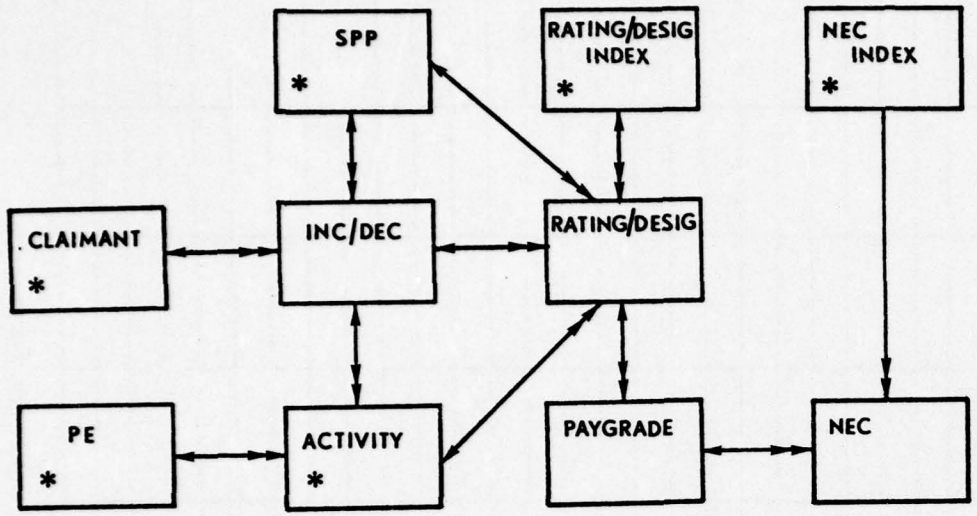
The Delta Subsystem accomplishes 5 major tasks or functions. They are:

- Delta Collection
- Delta Edit and Load
- Data Base Bypass
- Delta Query and Select
- Delta Extract

A major design influence on the modules which perform these 5 tasks was the use of IDMS. IDMS is an integrated data base management system which provides a powerful tool for organizing, retrieving and maintaining a complex data structure. The data, in this case the information defining manpower increments and decrements for POM assessment, is stored according to a predefined "SCHEMA." (see Figure 1.5) This "SCHEMA" defines logical data relationships, data manipulation standards, multiple data aggregation in terms of owner/member relationships, and various access and storage orderings to maximize retrieval efficiency. The design of this IDMS "SCHEMA" was, in turn, generated by the type and format of the data collected on the Manpower Data Collection Form. (see Figure 1.6)

*See Appendix G for technical system flow of MINI-NAMPS Subsystems.

DELTAGG (IDMS DATABASE)



RECORD TYPE	DATA ITEMS AVAILABLE
SPP:	SPP Number
CLAIMANT:	CLAIMANT code, long title
RATING/DESIG. INDEX:	RATING/DESIG. abbreviation, numeric RATING/DESIG. code, Rating Group code
INC/DEC:	INC/DEC number, INC/DEC title, Priority code, delta flags,SPONSOR code
RATING/DESIG.	RATING/DESIG. code, OEGW code, Billet quantity - FY 77 thru FY 82, delta flags
ACTIVITY:	ACTIVITY code, UIC, REASON code
PAYGRADE:	PAYGRADE code, Billet quantity - FY 77 thru FY 82.
NEC INDEX:	NEC code
NEC:	NEC/NOBC codes, Billet quantity - FY 77 thru FY 82
PE:	Program Element number

* ENTRY POINTS

←→ Indicates access path in both directions.

→ Indicates access path in one direction only

←→→ Indicates one to many relationship.

Figure 1.5

IDMS Defined SCHEMA of DELTAGG

BLOCK I

SPONSOR [1] [ ][ ] CLAIMANT [2] [ ][ ] REASON [3] [ ][ ][ ]

BLOCK II

S.P.P. [4] [ ][ ] INC/DEC [5] [ ][ ][ ][ ] TITLE [6] [ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ] PRIORITY [ ][ ]

BLOCK III

S/S [8] [ ] P.E. [9] [ ][ ][ ][ ][ ][ ] AFF ACTIVITY 1 [10] [ ][ ][ ][ ][ ][ ][ ][ ][ ] UIC 1 [11] [ ][ ][ ][ ][ ][ ]

2 [ ][ ][ ][ ][ ][ ][ ][ ][ ] 2 [ ][ ][ ][ ][ ][ ]

CHANGE TYPE [12] [ ] 3 [ ][ ][ ][ ][ ][ ][ ][ ][ ] 3 [ ][ ][ ][ ][ ][ ]

USING ACTIVITY [13] [ ][ ][ ][ ][ ][ ][ ][ ][ ] 4 [ ][ ][ ][ ][ ][ ][ ][ ][ ] 4 [ ][ ][ ][ ][ ][ ]

START YEAR [14] [ ][ ] 5 [ ][ ][ ][ ][ ][ ][ ][ ][ ] 5 [ ][ ][ ][ ][ ][ ]

BLOCK IV

[15] OEGW	[16] BILLET SEQUENCE NUMBER	[17] DESIG RATING	[18] PAY GRADE	[19] PRI. NOBC NEC	[20] REQUIREMENTS FY 77	FY 78	FY 79	FY 80	FY 81	FY 82

- Delta Collection:

The Manpower Data Collection forms are the heart of the Delta Collection function. They are used by sponsors and OP-121 to submit Manpower increments/decrements for POM assessment. They can be used to specify new activities, delete activities, and change the quality and quantity of existing activities with regard to the Officer, Enlisted or Civilian Community. Data items collected include: a uniquely identifying INC/DEC number; an INC/DEC title which corresponds to that used by OP 90's NARM System; the program element sponsor and claimant associated with a particular activity; program element code; UIC; and Billet counts identified by Rating/Designator, Paygrade/Rank, and NEC/NOBC for one FY prior to POM year, the POM year, plus 4 outyears. The increments/decrements are identified at a higher level by inclusion in a SPP which corresponds to a specified Sponsor Program Proposal. (see Appendix B for detailed specification of data items collected). In cases where a whole Activity is deleted or added, a "using" Activity code which defines or approximates closely its quality may be specified; this relieves the sponsors from the necessity of specifying the detailed quality of a whole Activity. When so specified, the quality of the "using" activity is later extracted from the MAPMIS Billet File.

The keypunched data from the Manpower Data Collection Forms together with all extracted quality is loaded to disk and passed to the Delta Edit and Load task.

- Delta Edit and Load:

This task has as its goal the loading of all manpower changes to the IDMS data base. Since data must be presented in adherence to the predefined "SCHEMA," it must be free of all errors relating to logical relationships and validity of codes. This is accomplished by the edit process which locates such errors. Invalid data is rejected and identified for correction and resubmission. The edited data is reformatted, appropriately sorted and subsequently loaded to the Data Base. Once loaded to DELTAGG, the term used for the aggregation of all manpower data in the data base, it is ready for use by Delta Query and Select, and Delta Extract.

- Delta Query and Select:

This function allows users of MINI-NAMPS to query the content of DELTAGG for the purpose of reviewing aggregations by specific SPP's, INC/DEC numbers, claimants, program elements, activities, etc. The results of the query can be immediately available by use of the interactive version of DELTA QUERY, or in case of voluminous output, can be printed at a later time by use of the batch version. Additionally, this function allows users to select a subset of DELTAGG by flagging according to specified criterion all increments/decrements desired for inclusion in the new subset - now identified as DELTAXX. Up to 30 different subsets, i.e. DELTA's, can be created with the use of this flagging process, and all query and extraction processes can subsequently be limited to any one of these defined Deltas. A detailed description of available commands and their result is contained in Appendix C which includes the POM 78 MINI-NAMPS DELTA QUERY - USER's GUIDE and a sample on-line session of DELTA QUERY.

- Delta Extract:

Once a set of increments/decrements has been chosen and designated as a specific DELTAXX, (by the flagging option of DELTA QUERY) its impact on Navy Requirements and Personnel must be assessed. Delta Extract allows the extraction of variously formatted data for use by; the Support Subsystem which generates the support tail for a specific delta before an Enlisted requirement base is updated; by the Officer Subsystem for updating of the Officer base; and by the NEC Subsystem for updating the NEC base. When a final DELTAXX has been chosen as a result of POM assessment, the Delta Extraction function is used to generate the Implementation Report. This is a detailed list of all approved increments/decrements for use by OP-103 to accomplish a timely update of the MAFIOSO and for use by OP-100/102 to update the MAPMIS Billet File.

- Data Base Bypass:

Because of the software complexity of an integrated data base, the loading of data is time consuming and thus subject to interruption by system failures. In the event of such a failure, at a point where time constraints imposed by the POM assessment preclude a timely recovery, the Data Base Bypass function can be used to bypass the loading of the Data Base and select a DELTAXX for subsequent input to the Support Subsystem and Officer Subsystem, thus the function of other MINI-NAMPS subsystems need not be degraded by Data Base problems.

2.3.2 SUPPORT Subsystem

The Support Subsystem accomplishes the following tasks:

- Support Ratio Generation
- Support Billets Generation

- Support Ratio Generation:

During POM-78, a much improved support algorithm was used. The final support ratios were derived from the NARM's support ratios, defining the "support tail" by program element and fiscal year, and the "quality ratios" computed from the enlisted requirements file. These "quality ratios" provided a distribution of billets for each program element bymission sponsor, rating and paygrade. Each set of NARM support ratios was matched by program element with a set of quality ratios. The product of these two sets of ratios provided a complete set of ratios distributing the "support-tail" by sponsor, rating, paygrade, and fiscal year.

- Support Billets Generation:

These final ratios were then used to compute the "support tail" for a selected DELTAXX, and the combined result applied to the enlisted requirement BASE. Appendix D contains a detailed discussion of Support generation.

2.3.3 ENLISTED REQUIREMENT Subsystem

The Enlisted Requirement Subsystem accomplishes the following tasks:

- Enlisted Base Load
- Base Constraints Application
- Enlisted Base Update

- Enlisted Base Load:

Before a selected DELTAXX plus its support tail can be applied to a base, a start base must be loaded. The Enlisted Base Load function allows for loading of the Enlisted requirement base from two sources, the NAVCOSSACT'S QRA System; and the Billet File of MAPMIS. The QRA system provides a requirements Base that is quantitatively constrained to the MARP end strength. It does not, however, detail billet counts to the sponsor level; consequently a Base indicating Sponsor distribution is required for later use in distributing the QRA derived base to sponsors. Both bases are reformatted to a common MINI-NAMPS BASE format (see Base Data, Section 2.4.1) and passed to the Base Constraints application function.

- Base Constraints Application:

A sub-task of this function consists in distributing the qualitized and MARP end strength coincident Billets of the loaded QRA Base over sponsors. The resulting distribution is in direct proportion to the one existing in the unconstrained MAPMIS derived Base. The basic algorithm used is as follows:

GIVEN:	MAPMIS BASE ALL NAVY	BM E7=300
	MAPMIS BASE OP-03	BM E7=60
	QRA BASE ALL NAVY	BM E7=250
CALCULATED:	MINI-NAMPS BASE OP-03	BM E7=50

i.e. $$\frac{M\ (OP\text{-}03\quad BM\ E7) = 60}{M\ (All\ NAVY\ BM\ E7) = 300} = \frac{X}{Q\ (All\ NAVY\ BM\text{-}E7) = 250}$$

For detailed explication on this technique and in particular the algorithm used to overcome the small numbers problem, see APPENDIX E. The resulting MINI-NAMPS Enlisted Requirement Base coincided to the MARP in quantity but to the MAPMIS Billet File in quality. In addition to this sub-task, the Enlisted Constraints Application function has as its major function the application of specified pay grade constraints and desired adjustments to end strength; and the generation from a selected base of copies suitably formatted for input to the ADSTAP.FAST model for Enlisted Inventory projection, and to the STAPLAN system for use in developing an A-School training plan. The specified constraint applications and Base copies to ADSTAP.FAST and STAPLAN can be directed for any of the generated Bases – before or after the DELTA update process.

- Enlisted Base Update:

After a specified DELTAXX has been extracted from DELTAGG and its support tail generated, it is passed to the Enlisted Base Update function for application to a specified Enlisted Requirement Base. The selected increments/decrements comprising the DELTAXX are updated by sponsor, rating, paygrade and fiscal year. The updated base is then passed back through the Enlisted Constraints Application function for application of paygrade constraints, and the resulting base again passed to ADSTAP.FAST and STAPLAN for inventory projection and A-School planning. All Bases generated in the Enlisted Requirement Subsystem, whether resulting from updating or constraining, are stored for processing by the Base Report/Display Subsystem.

2.3.4 ENLISTED INVENTORY Subsystem

The Enlisted Inventory Subsystem accomplishes two major tasks:

- o Inventory Base Load
- o M-FAST Inventory Projection

- Inventory Base Load:

ADSTAP.FAST generates an Enlisted Inventory Projection based on a specified Enlisted Requirement Base. The Inventory Base Load function is used to load this Projected Inventory Base and make adjustments to certain Rating structure differences between existing personnel planning systems and manpower planning systems. Since ADSTAP.FAST only projects at the All-Navy level, this Inventory base as well as the one M-FAST generates (see below) is then distributed over Sponsors and stored in standard MINI-NAMP format for use by the BASE REPORTS/DISPLAY Subsystem.

- M-FAST Inventory Projection:

Enlisted Inventory projections are repeatedly required during POM assessment. This creates a time frame to which ADSTAP.FAST was unable to respond. For this purpose the interim Inventory projection module M-FAST was incorporated into the MINI-NAMPS system:

M-FAST is a projection simulator developed under the sponsorship of ONR which approximates within satisfactory confidence limits the output of ADSTAP.FAST. It uses as its input the FAST system log of a start base projection along with an updated Enlisted requirement base. Its output serves as an Enlisted Inventory Base for interim comparison and feasibility assessment.

2.3.5 ENLISTED NEC Subsystem

With the exception of the capability provided by the DELTA Subsystem for querying the NEC distribution over a specified DELTA, the NEC data is processed exclusively for interface with, and support of, the C-School planning System, SISTERN. For this reason, and because of the large number of NEC codes used for defining Navy Manpower Requirements. NEC data is processed by a separate subsystem. A single module of the Enlisted NEC Subsystem performs the three required tasks.

- Load/Update/Punch:

The module which performs the above three tasks performs each task separately. Which task it performs is determined by a parameter specified at run time. The load task uses NEC data extracted from the MAPMIS billet file and loads it in conformance to the SISTERN system input format. This start NEC base is then used by SISTERN to generate a tentative C-School plan. The final DELTAXX is used to update the start NEC base. Each NEC which had its billet count altered, due to the update of the final DELTAXX, is extracted and made available to SISTERN to generate the final C-School plan.

2.3.6 OFFICER REQUIREMENT Subsystem

This subsystem comprises the following tasks:

- Officer Base Load
- Officer Base Update

- Officer Base Load:

The Officer Base Load function uses an extract from the MAPMIS Officer Billet file to generate a start base which conforms to the MINI-NAMPS BASE format.

- Officer Base Update:

After a DELTAXX has been selected and extracted it is applied to the start base generated above. Although the same extracted DELTAXX is used for Enlisted base update and Officer base update; in the case of Officers, no support has been added, since the NARM system provides no Officer support ratios. The new officer base generated by the update process, along with the start base, is stored for processing by the BASE REPORTS/DISPLAY Subsystem.

2.3.7 BASE REPORTS/DISPLAY Subsystem

This subsystem comprises all modules which generate reports or facilitate interactive queries related to the three types of BASES defined under MINI-NAMPS Terminology (Page 12). Since each BASE is stored in the standard MINI-NAMPS format, a single module is able to access all three types of bases and thus provide the immediate and selective comparison capability essential to effective POM support. The Report and Display capabilities that comprise the BASE REPORTS/DISPLAY Subsystem are as follows:

- PLOT Query
- Batch Plots
- Comparison Report
- ERP
- ORP

- Plot Query:

This is one of two modules designed to provide the user with direct access to information stored by MINI-NAMPS. Through the use of a telephone and computer terminal, the user is able to specify a series of commands which cause selected information to be displayed. The Interactive Plotting System - PLOT Query allows the user to specify up to 3 Bases (i.e., EA010, EA012, IA012), and various

groupings of Ratings/Paygrades for which he desires a comparison plot displayed. Additionally, by use of the CRITERION command the user can search for those ratings which differ among the specified bases by a ratio greater than that specified by the user. This allows the user to ascertain, for example, whether the Personnel Inventory (IA012) will have a problem in meeting Manpower requirements (EA012) at the rating/paygrade level. A detailed description of the use and purpose of PLOT Query along with a sample session is found in APPENDIX F-POM 78 MINI-NAMPS PLOTTING SYSTEM -USERS GUIDE.

- Batch Plots:

Whereas the interactive PLOT Query module is used for immediate response and a relatively small number of plot displays, the Batch Plot module is used to generate a complete set of comparison plots. Billets are plotted at various levels of aggregation and grouped alphabetically, by DOD defined Rating Areas, or by OP-01 defined Rating groups. For definition of available aggregation and grouping parameters see POM 78-MINI NAMPS SYSTEM FUNCTION AND SPECIFICATIONS. See Figure 2.1 - 2.3 for sample Batch plots.

RATING: TD E9 IN GROUP IX - AVIATION

B	32						
I	30						
L	28						
L	26						
E	24						
T	22						
S	20		U	U	U	U	U
/	18	U	C	*	*	*	*
M	16	*	I				
E	14						
N	12						
	10						
		77	78	79	80	81	82

RATING: TD IN GROUP IX - AVIATION

B	1925						
I	1850						
L	1775			U		U	*
L	1700		U		U	*	C
E	1625		C	C	C		
T	1550	U					
S	1475	C					
/	1400				I		
M	1325						
E	1250						
N	1175			I			
	1100	I	I				
		77	78	79	80	81	82

RATING: ALL E4 IN GROUP IX - AVIATION

B	22650						
I	22500	U	U	U			
L	22350					U	U
L	22200				U		
E	22050	C					
T	21900						
S	21750		C			C	C
/	21600			C	*		
M	21450					I	I
E	21300						
N	21150	I	I	I			
	21000						
		77	78	79	80	81	82

* INDICATES COINCIDENCE BETWEEN 2 OR MORE VALUES.

Figure 2.1
Plot of Unc. Requirements, Const. Requirements, and Projected Personnel Inventory by Rating/Paygrade and OPNAV Rating Groups.

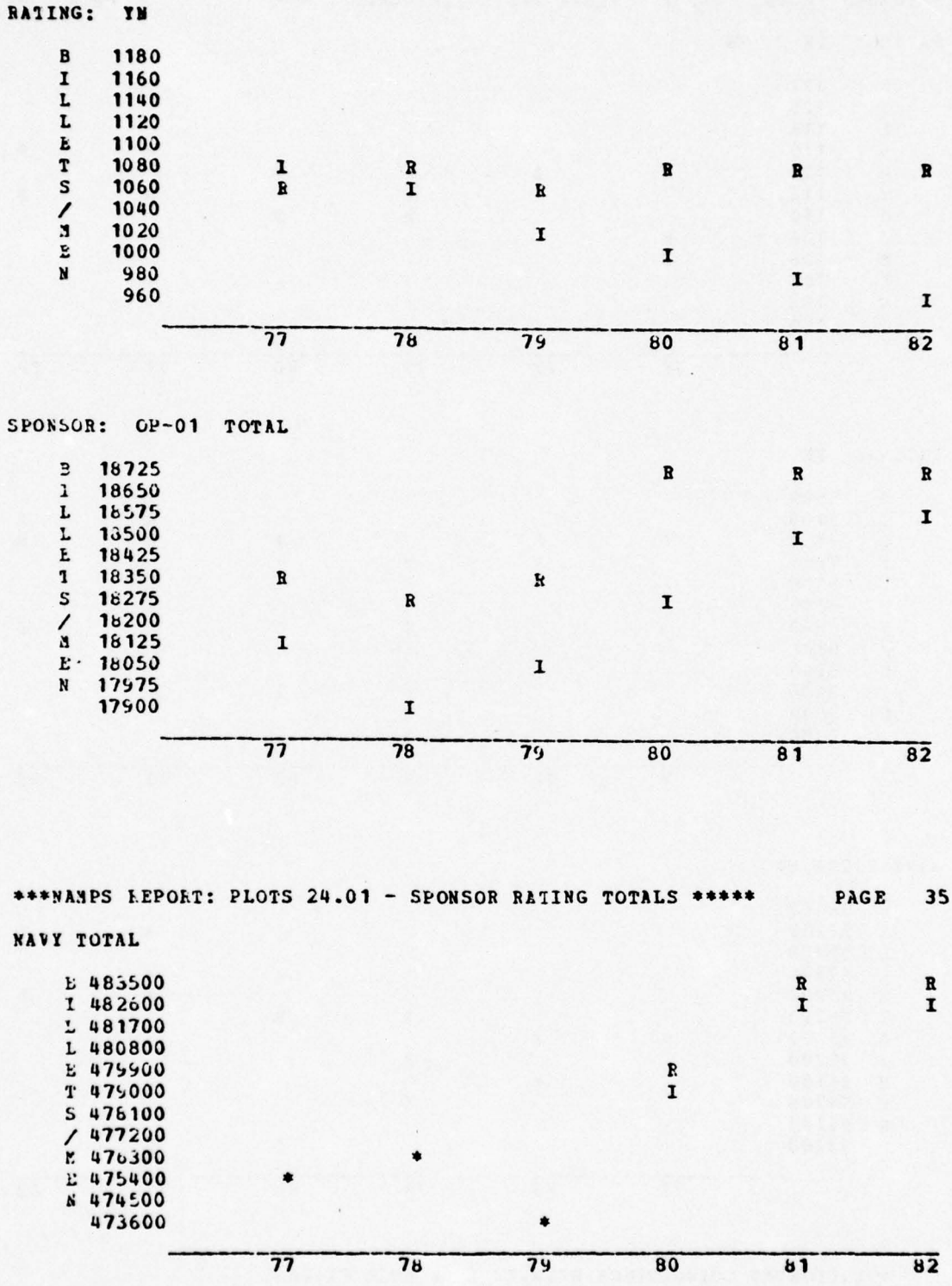


Figure 2.2

Plot of Constrained Requirements vs. Projected Personnel Inventory by Rating and Sponsor

```
***NAMPS REPORT  24.12 - ALNAV RATING/PAYGRADE   ***              PAGE  194

RATING:  YN     E9

    B    122
    I    120
    L    118
    L    116                                                  *         *
    E    114                  A                    *
    T    112                  *         *                    B         B
    S    110                            B         B
    /    108        *
    M    106        I
    E    104
    N    102
         100
             ---------------------------------------------------------------
                   77        78        79        80        81        82

RATING:  YN

    B   9500
    I   9400                                                  A         A
    L   9300        *         B                    *         B         B
    L   9200                  *         *
    E   9100
    T   9000
    S   8900                            I                               I
    /   8800
    M   8700
    E   8600                                       I
    N   8500                                                  I
        8400
             ---------------------------------------------------------------
                   77        78        79        80        81        82

NAVY TOTAL E4

    B  98700
    I  98200                                                  A         *
    L  97700
    L  97200                                       A
    E  96700                                                  B         B
    T  96200                            A         B
    S  95700        *         B
    /  95200                            B
    M  94700                  *
    E  94200                            I
    N  93700
       93200                                       I         I
             ---------------------------------------------------------------
                   77        78        79        80        81        82

* INDICATES COINCIDENCE BETWEEN 2 OR MORE VALUES.
```

Figure 2.3

Plot of Constrained Requirements Before POM/After POM and Projected Personnel Inventory After POM

- Comparison Report:

The above two modules generate plots that indicate relative relationships between Ratings and Paygrades of various specified BASES. The Comparison Report is generated when exact Billet counts of various Ratings and Paygrades are desired. Billet counts of two selected BASES are given by Sponsor, Rating, Paygrade for a specified fiscal year. Figure 2.4 is a sample of a detail page and Figure 2.5 is a sample of a summary page of the Comparison Report.

- ERP:

This report is an automated version of the Enlisted Requirements Plan. Any Enlisted Requirment Base stored in MINI-NAMPS can be generate in this format. See Figure 2.6 and 2.7.

- ORP:

The ORP module is the automated version of the Officer Requirement Plan and can be generated from any Officer Base stored in MINI-NAMPS. See Figure 2.8 and 2.9.

2.4 Software/Hardware Overview

2.4.1 Data Categories

The data stored and accessed by MINI-NAMPS falls into three main categories.

- Base Data
- Delta Data
- Control & Identification Data

RATING ET

PROGRAM SPONSOR GRADE (# OF BILLETS IN EA001 VS IA002)

	4		5		6		7		8		9		TOTAL	
OP-01	0	0	0	0	103	107	51	51	25	25	10	10	189	193
OP-02	0	0	0	0	816	849	257	257	145	146	15	15	1233	1267
OP-03	0	0	0	0	530	551	213	213	46	46	35	34	824	844
OP-04	0	0	0	0	70	72	76	76	56	57	29	29	231	234
OP-05	0	0	0	0	276	287	105	105	25	26	20	20	426	438
OP-06	0	0	0	0	6	6	10	10	2	2	0	0	18	18
OP-09B	0	0	0	0	14	15	13	13	8	8	4	4	39	40
OP-09R	0	0	0	0	30	31	18	18	1	1	1	1	50	51
OP-91	0	0	0	0	2	2	1	1	0	0	0	0	3	3
OP-094	0	0	0	0	312	325	124	124	32	33	14	13	482	495
OP-095	0	0	0	0	19	20	0	0	0	0	0	0	19	20
OP-098	0	0	0	0	39	41	15	15	3	3	1	1	58	60
OP-099	0	0	0	0	866	900	458	458	80	81	40	39	1444	1478
OP-009	0	0	0	0	19	20	3	3	3	3	0	0	25	26
TOTAL	0	0	0	0	3102	3226	1344	1344	426	431	169	166	5041	5167

EA001	SHORTAGE	0		0		124		0		5		0		129	
IA002	EXCESS	0		0		0		0		0		3		3	

Figure 2.4

Comparison Report Detail Page, Showing Enlisted Requirement Base, EA001 vs. Projected Personnel Inventory Base IA002.

BASE COMPARISON REPORT

0300 - OS	2028	1983	1712	1676	1480	979	694	694	155	157	57	56	6126	5545
0450 - OT	365	334	346	316	277	288	123	123	32	31	13	14	1156	1106
2700 - PC	423	462	279	287	113	118	44	50	7	7	9	9	875	933
7600 - PH	459	502	470	482	361	375	159	159	44	44	8	8	1501	1570
1080 - PI	0	0	0	0	0	0	0	0	0	0	8	12	8	12
4600 - PM	30	33	35	36	40	42	19	19	0	0	0	0	124	130
1800 - PN	1256	1074	1564	1361	1537	1599	794	796	198	200	110	107	5459	5137
7000 - PR	445	374	489	444	283	294	107	107	16	16	7	7	1347	1242
0200 - QM	1031	995	854	1025	809	608	753	755	87	88	43	41	3577	3512
1500 - RM	4881	5218	3973	4078	2583	2687	1425	1426	391	395	146	143	13399	13947
2490 - SH	1533	1607	1169	1201	919	956	301	302	118	119	69	68	4109	4253
2000 - SK	2311	2141	2141	1915	1749	1821	1153	1154	293	296	132	130	7779	7457
0250 - SM	917	686	799	607	718	736	152	152	41	41	12	12	2639	2234
3600 - SN	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0400 - ST	0	0	0	0	0	0	0	0	0	0	72	65	72	65
0401 - STG	1044	1141	903	927	711	739	309	307	123	108	0	0	3090	3222
0404 - STS	919	1005	664	682	580	603	246	245	129	112	0	0	2538	2647
5700 - SW	208	209	150	155	167	174	83	83	19	19	0	0	627	640
7200 - TD	485	253	522	268	397	413	138	139	36	36	17	16	1595	1125
0500 - TM	1030	1024	1044	1071	764	795	403	403	139	141	62	61	3442	3495
5800 - UT	272	297	313	321	220	229	79	79	28	26	21	25	933	977
1700 - YN	2750	3112	2589	2120	2214	2303	1294	1294	337	341	111	108	9295	9278
TOTAL	95528	95527	84821	84546	68357	68364	32224	32224	8771	8775	3766	3761	293467	293197

EA001	SHORTAGE	0		0		7		0		4		0		11
IA002	EXCESS	1		275		0		0		0		5		281

Figure 2.5
Comparison Report - Summary Page

REQUIREMENTS

RATE	FY 1977	FY 1978	FY 1979	FY 1980	FY 1981	FY 1982
ASCM	13	13	14	15	14	14
ASCS	36	36	37	36	36	36
ASC	120	123	122	121	122	122
AS1	316	322	325	319	318	318
ASE2	171	169	169	167	168	168
ASE3	185	188	187	186	187	187
ASH2	148	150	148	146	149	149
ASH3	159	160	159	157	159	159
ASM2	269	265	262	260	261	261
ASM3	255	246	239	233	234	234
TOTAL	1672	1672	1662	1640	1648	1648

STRIKERS

ASEAN	120	117	119	113	112	112
ASHAN	125	130	128	124	122	122
ASMAN	197	200	204	189	191	191
TOTAL	442	447	451	426	425	425

Figure 2.6
ERP Report, Detail Page

SUMMARY OF REQUIREMENTS PAGE 1

PAY. GRADE	FY 1977	FY 1978	FY 1979	FY 1980	FY 1981	FY 1982
E-9	3770	3766	3749	3794	3821	3821
E-8	8735	8771	8731	8837	8900	8900
E-7	32167	32224	32079	32465	32698	32698
E-6	68248	68357	68049	68868	69363	69363
E-5	84568	84545	84088	85118	85734	85734
E-4	95454	95528	95098	96242	96933	96933
TOTAL P.O.	292942	293191	291794	295324	297449	297449
E-3	102581	102222	102875	104311	103654	103654
E-2	43680	43730	43067	44018	45327	45327
E-1	36162	36751	35938	35739	36411	36411
TOTAL NON P.O.	182423	182703	181880	184068	185392	185392

DESIGNATED STRIKERS INCLUDED IN NON-PETTY OFFICER SUMMARY ABOVE

	59281	61050	60738	57879	57386	57386

OFFICER CANDIDATES: (ARE NOT INCLUDED IN ABOVE)

OCMSN	4350	4350	4350	4350	4350	4350
OCOCS	198	198	198	198	198	198
OCAOC	378	536	302	302	302	302
OCNPP	59	59	59	59	59	59
TOTAL OFF CAND	4985	5143	4909	4909	4909	4909
XXXX

DESIGNATOR 1520 REQUIREMENT
AERONAUTICAL MAINTENANCE DUTY OFFICER

GRADE	FY 1977	FY 1978	FY 1979	FY 1980	FY 1981	FY 1982	PAC* T	PAC* E	PAC* R
FLAG	0	0	0	0	0	0			
CAPT	6	6	6	6	6	6			
CDR	52	52	55	55	55	55			
LCDR	7	7	7	7	7	7			
LT	112	113	112	112	112	112			
LTJG	0	0	0	0	0	0			
ENS	0	0	0	0	0	0			
TOTAL	177	178	178	178	178	178			

Figure 2.8

ORP Report, Detail Page

SUMMARY OF TOTAL FY 77-82
OFFICER REQUIREMENTS

GRADE	FY 1977	FY 1978	FY 1979	FY 1980	FY 1981	FY 1982	FAC* T	FAC* E	FAC* R
FLAG	1529	1503	1483	1480	1398	1398			
CAPT	10630	10562	10773	10661	10762	10762			
CDR	7275	7004	6953	6973	6966	6966			
LCDR	17665	17548	17408	17353	17405	17405			
LT	17147	17127	16928	16791	16816	16816			
LTJG	3424	3410	3407	3385	3377	3377			
ENS	2364	2369	2364	2313	2300	2300			
WO3-4	1635	1614	1556	1531	1516	1518			
WO1-2	1566	1563	1552	1544	1547	1547			
TOTAL	65237	62700	62346	61951	62069	62069			

Figure 2.9

ORP Report, Summary Page

- Base Data:

After editing, updating and application of various constraints base data is stored in the MINI-NAMPS Base format. Each logical record contains Rating or Designator, a Program Element Sponsor code, a 9 by 6 array indicating the paygrade and fiscal year of the Billet count, and the Base identification code. Both Officer and Enlisted Billet counts, and Enlisted Inventory personnel counts are stored in this format. Each logical record can be directly accessed by MINI-NAMPS because its relative position among other logical records corresponds to the relative position of its rating/designator code in an index of ratings/designators. Each BASE defines a seperate aggregation of Billet counts, by sponsor, Rating/Designator and Paygrade, and therefore represents a "version" of the Navy's Manpower requirements or Personnel Inventory.

- Delta Data:

Delta Data enters MINI-NAMPS by submission of the Manpower Data Collection form. On these forms, Sponsors and Claimants define the quality and quantity of each of their requested manpower increments and decrements. (see Sample Form - Figure 1.6). This data is then edited and loaded into the IDMS data base – DELTAGG. Here the data can be displayed via a computer terminal and selected increment/decrements can be flagged by the user as a member of a specific DELTAXX. Refer to Figure 1.5 showing conceptual schema which indicates the logical relationships existing between data identifiers. Billet counts can be displayed at the various levels indicated on this schema.

- Control and Identification Data:

Control data used by MINI-NAMPS is in some cases specified at run time and consists of various codes indicating which function is to be performed, what kind of report is to be generated, or what kind

of constraints are to be applied. In other cases control data is resident in the system and is commonly accessed by various system modules. Such data includes; the Rating/Paygrade index, which defines all valid Ratings, and their associated paygrades; the Designator/Rank index which defines valid Designators and Ranks; the Sponsor Index; the Claimant Index; and various other indexes associating a numeric code to its designated meaning.

Identification data is stored in MINI-NAMPS for the purpose of identifying the nature, source and purpose of various data. It includes such things as formal titles used in report generation, descriptions and definitions of various Bases, cover page information for reports, etc.

A more complete conception of these data categories can be gained from the POM-78 MINI-NAMPS SYSTEM FUNCTION AND SPECIFICATION Manual which discusses the technical details of data content and storage techniques.

2.4.2 Software Summary

The major portion of the programs comprising MINI-NAMPS are written in PLI using the IBM PLI Optimizing Compiler; the Support Subsystem and the module generating the ERP report are written in COBOL IV; and the major constraint application module is written in FORTRAN IV. The complete MINI-NAMPS system comprises 43 seperate programs along with various utility modules. Existing IBM utilities were used whenever possible for such functions as sorting data, loading data, and transferring data to other installations. Job submission and execution is oriented to remote on-line processing with batch processing being used only when interfacing with other Navy Systems.

2.4.3 Hardware Summary

During FY 75-76 MINI-NAMPS was operated at the National Institutes of Health Computer Center under the IBM System 370 Operating System.

The facility is comprised of three subsystems interconnected by shared direct access storage devices and controlled by HASP Shared Spool. The processing units employed are:

- 2 IBM 370/168 MP
- 1 IBM 370/165

Wylbur, NIH's terminal command language served as the primary mode of user access; TSO and Batch mode serve as secondary user access methods. All Disk storage makes use of the IBM model 3330 Direct Access Storage Facility; Magnetic tape units used for reading and generating tapes are the IBM series 2101-2115. Interface data from other systems can be processed if supplied on 9 track 800 bpi -3200 bpi tapes, 7 track 200 bpi - 800 bpi tapes, or on IBM punched cards.

3.0 POM 78 MINI-NAMPS OPERATION

BOK
DYNAMICS, INC.
15825 SHADY GROVE ROAD
ROCKVILLE, MARYLAND 20850

3. POM 78 MINI-NAMPS OPERATION

3.1 Overview

MINI-NAMPS' support of POM 78 was divided into three operational Phases. Each Phase is marked by the time frame in which it operates and by the purpose it serves. During these three successive Phases, MINI-NAMPS functions at various levels of operation and reaches its maximum level during Phase II.

Although MINI-NAMPS is capable of handling required processing for both Officer and Enlisted planning support, the emphasis has thus far been on the Enlisted community. For this reason, and for reasons of brevity and clarity, the following discussion of the three Operational Phases of POM 78 MINI-NAMPS will be confined to the flow associated with Enlisted Manpower and Inventory. Figure 3.1 illustrates the operational flow of Phase I, II, and III along with an indication of their time frame. The sections following discuss this operational flow in greater detail.

3.2 PHASE I - "START BASE" Generation

During Phase I (30 Jan - 30 Feb). Three Enlisted Requirement Bases were loaded and one Enlisted Personnel Inventory Base.

- EA000
- EA001
- EA002
- IA002

The original source of the Enlisted Requirements was the MAPMIS Billet File (also source of OPNAV 1000/2's). Since these requirements were unconstrained in that they exceeded the end-strength authorized by the Secretary of Defense, Constraints were applied by the Qualitative Requirements Application (QRA), under the sponsorship of NAVCOSSACT. Application of these constraints necessitated aggregation of the Requirements data at the All Navy level and in the ERP format. This Enlisted Requirements base then serve as input to MINI-NAMPS, was reformatted, spread to sponsors, and identified as base EA000 – Enlisted Requirements, constrained to the 30 January FYDP endstrength.

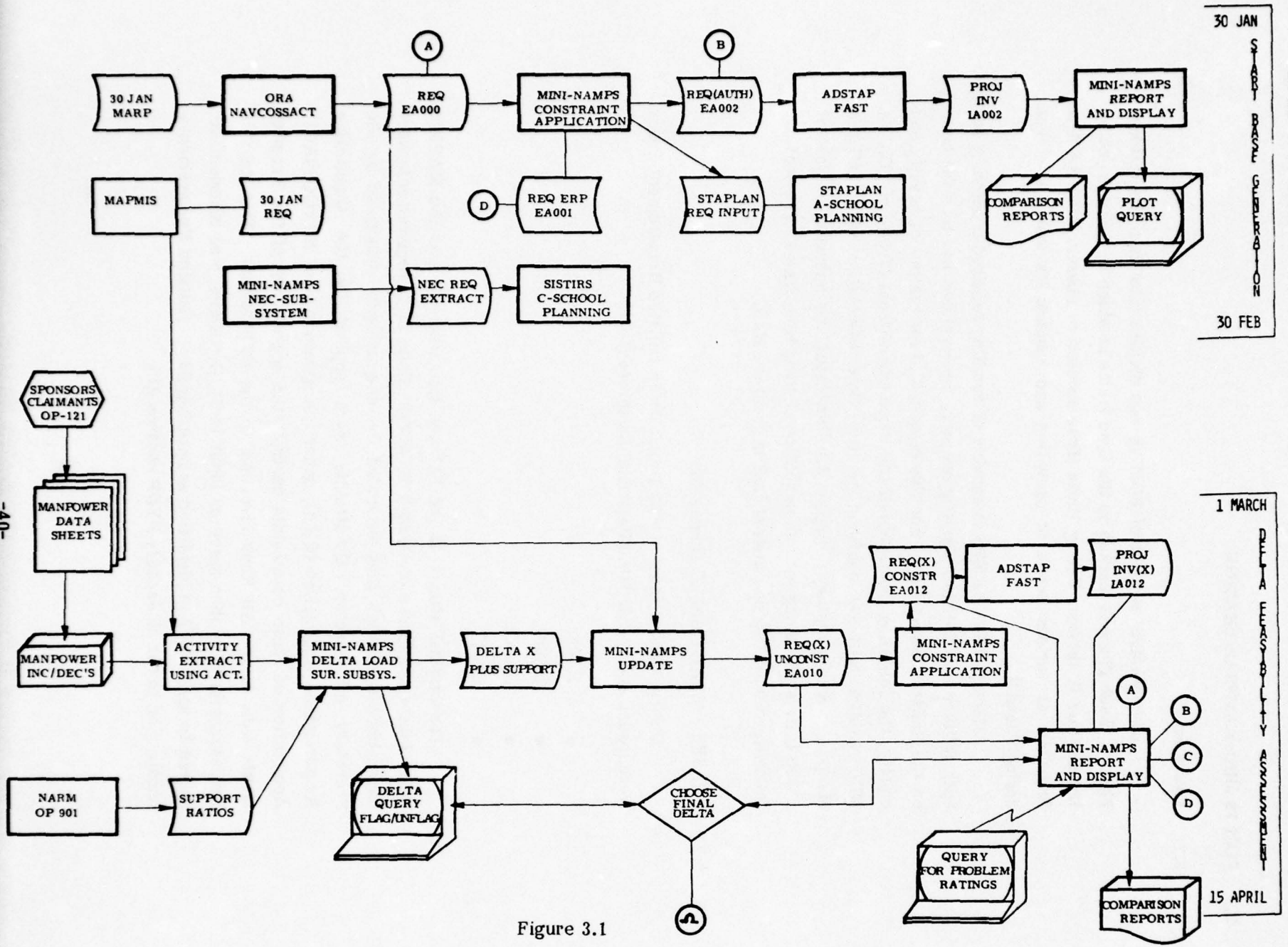
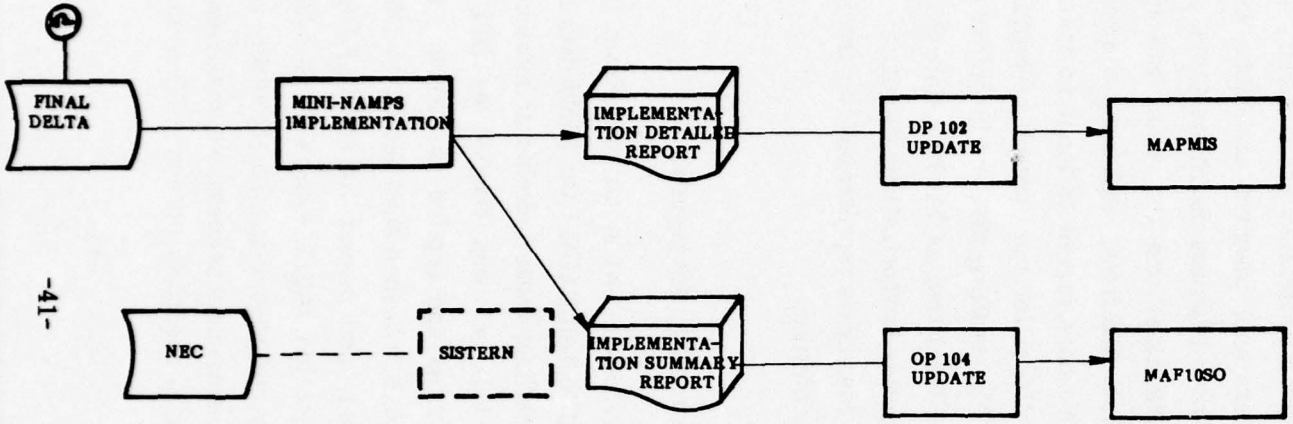


Figure 3.1

The Three Phases of POM 78 MINI-NAMPS Operation



15 APRIL

DELTA IMPLEMENTATION

30 MAY

PHASE II

Figure 3.1 continued

In addition to DOD endstrength constraints there exist specific Paygrade constraints. These constraints are expressed in terms of the ratio computed from the total E4-E9 endstrength over the E1-E9 endstrength and applied in terms of the resulting total billet count per paygrade which satisfies the DOD specified top-six ratio. The application of these paygrade constraints by MINI-NAMPS generated the BASE EA001 which was identified as the Enlisted Manpower Requirements constrained by Endstrength and top-six ratio.

The constrained Enlisted Requirements base serves as input to the ADSTAP.FAST Inventory projection model. Before this model can use the constrained base, further modification was necessary in order to account for differences in how Personnel planners distribute the Officer Candidate Billets and how Manpower Planners distribute them. MINI-NAMPS applied these additional modifications and the result was identified as EA002 - Enlisted Manpower Authorizations, endstrength and paygrade (TOP SIX ratio) constrained. This base served as input to the ADSTAP.FAST model and to the STAPLAN Model for the purpose of establishing a pre-POM A-School training plan. The resulting Enlisted Inventory projection was loaded into MINI-NAMPS and identified as IA002 - Enlisted Inventory projection based on Enlisted Manpower Authorizations EA002.

Together these four bases represented the pre-POM 78 Navy Enlisted Requirement/Inventory picture.

3.3 PHASE II - DELTA Feasibility Assessment

Phase II was initialized when all data from the Manpower change forms had been loaded to DELTAGG (the IDMS data base). OP-01 through personnel at OP-121 defined those Increment/Decrements that were to be applied to EA000. This set was flagged as DELTA 01, subsequently extracted from DELTAGG and applied to EA000. The updated Enlisted Requirement base, EA010, was then modified to the DOD specified paygrade ratio generating EA012, and passed to ADSTAP.FAST. The generated Enlisted Inventory projection, IA012, along with all existing bases was stored for comparison display and reporting. The resulting information was made available to the POM assessment process, which subsequently caused further flagging and unflagging of specified Increment/Decrements in DELTAGG.

3.4 PHASE III - DELTA Implementation

Phase III began when the selection of the final DELTAXX had been nearly completed, i.e., the set of approved increments/decrements had been flagged. At this time it was essential that consistency be established between the manpower change data collected by the Navy Resource Model - NARM and the manpower change data collected by MINI-NAMPS. When this was completed, a final DELTA02 was extracted and used to generate the Implementation report. This was forwarded in a summary format to OP-103 and in a detailed format to OP-100/102 allowing both offices to apply manpower changes to existing data bases in a more timely manner.

APPENDICES

BOK
DYNAMICS, INC.
15825 SHADY GROVE ROAD
ROCKVILLE, MARYLAND 20850

APPENDIX A

SAMPLE COVER PAGES

P O M - 7 8 22 MAR 76

N A M P S R E P O R T 22.01

****REPORT TITLE:

BASE COMPARISON REPORT
EA000 VS. EA001

****DESCRIPTION OF REPORT:

THIS REPORT COMPARES THE PROJECTED SPONSOR DISTRIBUTION OF ALL RATINGS/PAYGRADES IN FY 77 - 82 FOR BASES EA000 AND EA001. THE BILLET COUNTS FOR EA000 ARE LISTED ON THE LEFT UNDER THE RESPECTIVE PAYGRADE, WITH EA001'S BILLETS LISTED ON THE RIGHT. IN ADDITION THERE APPEARS A BILLET SHORTAGE OR EXCESS ROW FOR EACH RATING/PAYGRADE.

****ACTION REQUIRED:

INSPECTION/ANALYSIS

****DISTRIBUTION:

OP - 121 OP - 104

****DATA IDENTIFICATION:

BASE EA000 - SOURCE IS ORA SYSTEM (NAVCOSSACT)
BASE EA001 - SOURCE IS ORA SYSTEM (NAVCOSSACT)

EA000:
E PROJECTED ENLISTED REQUIREMENTS (NAMPS REPORT 21.01)
A ORIGINAL SOURCE 30 JAN BILLET FILE (RENLQUAL)
00 BEFORE POM-78 SPP APPLICATION - AFTER FY-77 PBD APPLICATION
0 UNCONSTRAINED QUALITY - CONSTRAINED QUANTITY TO JAN FYDP

EA001:
E PROJECTED ENLISTED REQUIREMENTS (NAMPS REPORT 21.02)
A ORIGINAL SOURCE 30 JAN BILLET FILE (RENLQUAL)
00 BEFORE POM-78 SPP APPLICATION - AFTER FY-77 PBD APPLICATION
1 JAN FYDP END STRENGTH - CONSTRAINED PAYGRADES (61.66%)

Copy available to DDC does not
permit fully legible reproduction

POR-78 NAMPS REPORT 24.01

PROCESSED 23 MAR 76

****REPORT TITLE: CHIEF OF NAVAL OPERATIONS
ENLISTED MANPOWER REQUIREMENTS AT ALL NAVY LEVEL BY RATING, PAYGRADE (E4-E9), AND OPNAV GROUP AS COMPARED WITH ENLISTED PERSONNEL PROJECTED BY RATING/PAYGRADE (E4-E9) AND OPNAV GROUP.

****DESCRIPTION OF REPORT:

THIS REPORT CONSISTS OF A SERIES OF GRAPHS WHICH PLOT ENLISTED MANPOWER REQUIREMENTS FOR FY 77-82 AGAINST PROJECTED PERSONNEL INVENTORIES FOR FY 77-82. THESE PLOTS ARE PROVIDED AT THE ALL NAVY LEVEL BY RATING, PAYGRADE (E4_E9), OPNAV GROUP AND ARE SUMMARIZED ACCORDINGLY. (ALL NAVY TOTAL SUMMARY INCLUDES PAYGRADE E1-E9) LABELS USED IN PLOTS ARE IDENTIFIED BELOW.

****ACTION REQUIRED:

PROVIDED FOR INFORMATION TO BUPERS AND OTHER OPNAV OFFICES

****DISTRIBUTION:

OP-01 OP-01CB OP-121 PERS-2B PERS-21

****DATA IDENTIFICATION:

SOURCE OF ENLISTED MANPOWER REQUIREMENTS IS NAVCOSSACT QRA SYSTEM.
SOURCE OF ENLISTED PROJECTED INVENTORY IS BUPERS ADSTAF SYSTEM-TAPE # 027635.

CODE STRUCTURE FOR BASE AND LABEL IDENTIFICATION FOLLOWS:

LABEL U IS BASE BA00U
- E PROJECTED ENLISTED REQUIREMENTS (NAMPS REPORT 21.01)
- A ORIGINAL SOURCE 30 JAN BILLET FILE (RENLQUAL)
- 00 BEFORE POM-78 SPP APPLICATION - AFTER FY-77 PBD APPLICATION
- U UNCONSTRAINED QUALITY - CONSTRAINED QUANTITY TO JAN FYDP

LABEL C IS BASE BA001
- E PROJECTED ENLISTED REQUIREMENTS (NAMPS REPORT 21.02)
- A ORIGINAL SOURCE 30 JAN BILLET FILE (RENLQUAL)
- 00 BEFORE POM-78 SPP APPLICATION - AFTER FY-77 PBD APPLICATION
- 1 JAN FYDP END STRENGTH - CONSTRAINED PAYGRADES (±1.66%)

LABEL I IS BASE IA002
- I PROJECTED ENLISTED PERSONNEL INVENTORY
- A BASED ON: ENLISTED AUTHORIZATIONS-BA002 (NAMPS REPORT 21.03)
- 00 BEFORE POM-78 SPP APPLICATION - AFTER FY-77 PBD APPLICATION
- 2 JAN FYDP END STRENGTH - CONSTRAINED PAYGRADES (±1.66%)
  CURRENT INDIVIDUAL PAYGRADE AUTHORIZATIONS

Copy available to DDC does not
permit fully legible reproduction

APPENDIX B

MANPOWER DATA COLLECTION SYSTEM

PURPOSE AND GENERAL INSTRUCTIONS

The purpose of this data sheet is to gather the quantity and quality of manpower information relating to POM 78 increments and decrements. Its primary purpose in POM 78 is to assist the Manpower Resources Coordination Panel (MRCP) in its manpower assessment during the Navy Program Objectives Memorandum (POM). Upon final assessment, the selected changes will be applied (as authorized changes) to the Navy Billet File. It is therefore essential that all applicable information be correctly identified.

To minimize errors, the OPNAV Form 1000/2 should be consulted where an activity already exists. In the case of adding a new activity which is unlike an existing activity, every effort must be made to identify the proper quality as well as the quantity of the required billets.

It is recognized that the identification of manpower quality and quantity required by this data sheet entails a considerable effort; however this will relieve sponsors and claimants of additional work at a later date, since the detail gathered now will render a POST POM gathering of manpower information unnecessary. In addition, this work will allow the MRCP to make decisions based on a more complete knowledge of their future impact on Navy manpower; and make these decisions at an earlier time in the POM cycle than has been previously possible.

Responsible offices must be familiar with the detailed instructions below and with the examples given on pages 7-12. Changes can be submitted in a variety of ways, therefore an understanding of the instructions and examples will minimize the amount of work necessary to complete these data sheets.

The form is divided into four major Blocks:

- BLOCK I — Each item in this block is always required.
- BLOCK II — Each item in this block is required if SPP was entered for REASON in BLOCK I.
- BLOCK III — The entries in this block will determine the nature of the requested manpower adjustment. Primary to this BLOCK is the specification of CHANGE TYPE; these are defined as follows:

- 1 - Add a new activity, quality is given below.
- 2 - Increment or decrement billets within existing (old) activity, quality is given below.
- 3 - Delete an existing (old) activity, quality will be retrieved from the Billet file.
- 4 - Add a new activity using the quality of an existing activity, quality will be retrieved from the Billet file. This code can also be used where an existing activity closely approximates a new activity with some modification of quantity and quality, in such a case modification may be given below.

Each item in this block is required with the following exceptions:

a) UIC: this code is not required in case of CHANGE TYPE = 1 or 4.

b) AFF ACTIVITY 2 through 5 are optional (see detailed instruction 10).

c) USING ACTIVITY, this is required for CHANGE TYPE = 3 and 4. In the case of CHANGE TYPE = 3, AFF ACTIVITY must = USING ACTIVITY.

d) START YR is required for CHANGE TYPE = 3 and 4.

- BLOCK IV Each item in this block is required (per line) for CHANGE TYPE = 1, 2 and optionally 4, with the exception of BILLET SEQUENCE NUMBER.

NOTE: When a second sheet is required to define quality, repeat header information in Blocks 1, 2 and AFF ACTIVITY in Block 3.

DETAILED INSTRUCTIONS

BLOCK I

1) SPONSOR

Enter code identifying the office designated as the program element sponsor for the affected activity. (See Tab A, Part 1)

2) CLAIMANT

Enter code identifying the command, bureau, or office designated as the military manpower claimant for the affected activity. (See Tab A, Part 2.) In the case of a new activity, if a specific claimant has not yet been identified; enter code=99.

3) REASON

Enter one of the following codes identifying the reason or purpose of this submittal:

- SPP - if Sponsor Program Proposal
- PBD - if Program Budget Decision
- PDM - if Program Decision Memorandum
- OTH - if Other

BLOCK II - Skip unless REASON = SPP

4) S.P.P.

Number for the SPP as assigned by originating Sponsor.

5) INC/DEC

Enter a plus sign for increment or a minus sign for decrement followed by the three digit INC/DEC number.

6) TITLE

Enter Title of the Increment or Decrement.

7) PRIORITY

Enter the priority code from Tab B, Part 1, which you attach to this INC/DEC.

BLOCK III

8) S/S

Enter one digit code designating the affected activity as:

- 1 Shore Duty
- 2 Sea Duty
- 3 Overseas Shore Duty
- 4 Toured Sea Duty
- 5 Preferred Sea Duty
- 6 Preferred Overseas Shore Duty

9) P.E. (Program Element)

Enter code which describes the affected activity's mission and is the basic building block for the Five Year Defense Program (FYDP).

10) AFF ACTIVITY 1 (Always Required)

Enter ten digit code assigned by the Chief of Naval Personnel identifying each activity for CHANGE TYPE = 2 or 3. (For new activities, enter abbreviation of the activity's official title.)

AFF ACTIVITY 2 - 5

Enter all additional activites where information is the same as AFF ACTIVITY 1.

11) UIC (Leave blank if CHANGE TYPE = 1 or 4)

Enter for AFF ACTIVITIES 1 - 5 their Unit Identification Code (previously designated as BUIC - see OPNAV 1000/2).

12) CHANGE TYPE (Always Required)

As defined under BLOCK III, page 2.

13) USING ACTIVITY

Enter using activity if CHANGE TYPE = 3 or 4, otherwise this block must be empty. For CHANGE TYPE =3, AFF ACTIVITY must = USING ACTIVITY.

14) START YEAR (Enter for CHANGE TYPE 3 and 4 only)

Enter the fiscal year when the change is to take effect. The quality beginning with that fiscal year will be retrieved and applied to Base beginning in that same fiscal year. (Note: if the manpower fluctuates in the out years, a CHANGE TYPE = 1 should be submitted.)

BLOCK IV (Enter for CHANGE TYPE 1, 2 and optionally 4)

15) O, E, G, W

Designate for each line whether the quality indicated applies to Officer, Enlisted, G.S. Civilian, or Wage Board Civilian using the following codes:

- 1 - OFFICER
- 2 - ENLISTED
- 3 - G. S. CIVILIAN
- 4 - WAGE BOARD CIVILIAN

16) BILLET SEQUENCE NUMBER (OPTIONAL)

17) DESIG/RATING

• OFFICER	Enter the desired designator from Tab C, Part 1.
• ENLISTED	Enter the desired enlisted billet rating from Tab C, Part 2.
• G.S. CIVILIAN	Leave blank.
• W. B. CIVILIAN	Leave blank

18) PAYGRADE

• OFFICER	01 - 10; W1 - W4
• ENLISTED	E1 - E9
• G. S. CIVILIAN	GS1 - GS18 (if available)
• W. B. CIVILIAN	WG1 - WG15 (if available)

19) PRI/NOC/NEC

• OFFICER	Enter Navy Officer Billet classification
• ENLISTED	Enter Navy enlisted classification
• G. S.CIVILIAN	Leave blank.
• W. B. CIVILIAN	Leave blank.

20) REQUIREMENTS

- CHANGE TYPE = 1 - Enter number of billets to be added in the fiscal years affected.
- CHANGE TYPE = 2 and optionally 4 - Enter number of billets incremented or decremented in the fiscal years affected; a minus sign must precede each decrement entered.

NOTE: If a "-2" appears under FY 78, 2 billets will be deleted for FY 78 only. To delete 2 billets for FY 78 thru FY 82, a "-2" must be entered under each of these fiscal years. To delete 2 billets in FY 78 and 2 additional billets in FY 79, "-2" must be entered in FY 78 and "-4" in FY 79.

EXAMPLE 1

Two additional SSBN 726 TRIDENT Submarines have been requested in POM 78 for introduction in FY 80.

$*_1$ The ten digit activity code is not yet assigned, therefore the name is entered in AFF ACTIVITY 1. Since two subs have been requested the name is also entered in AFF ACTIVITY 2 with some differentiating sequence character.

$*_2$ Since no 1000/2 exists thus far, a UIC code has not yet been assigned -- it is left blank.

$*_3$ The activity code of an existing SSBN 726 TRIDENT is entered so that the quality and quantity may be retrieved.

$*_4$ This is the Activity code of a TRIDENT taken from its 1000/2. It will be used to retrieve the quality and quantity for the two new TRIDENTS.

EXAMPLE 1

BLOCK I

SPONSOR [1] 02 CLAIMANT [2] 99 REASON [3] SPP

BLOCK II

S.P.P. [4] 02 INC/DEC [5] +001 TITLE [6] TRIDENT 2 FY80 PRIORITY 01

BLOCK III

S/S [8] 2 P.E. [9] 11228N AFF ACTIVITY [10] *1

1 TRIDENT A
2 TRIDENT B
3
4
5

UIC [11] *2

1
2
3
4
5

CHANGE TYPE [12] *3 4

USING ACTIVITY [13] *4 070607260 00

START YEAR [14] 80

BLOCK IV

[15] OEGW	[16] BILLET SEQUENCE NUMBER	[17] DESIG RATING	[18] PAY GRADE	[19] PRI. NOBC NEC	[20] REQUIREMENTS FY 77	FY 78	FY 79	FY 80	FY 81	FY 82

EXAMPLE 2

CINCLANTFLT requests an increment of manpower for LST 1179 NEWPORT to accompany proposed installation of new weapon system. It is requested for POM 78 to take effect FY 79.

$*_1$ REASON = SPP because it is part of the POM process

$*_2*_3*_4*_5$ S/S, P.E., AFF ACTIVITY, & UIC are from the 1000/2 for LST 1179

$*_6$ It is an increment to an existing activity, therefore CHANGE TYPE = 2.

EXAMPLE 2

BLOCK I

SPONSOR[1] 03 CLAIMANT[2] 60 REASON[3] SPP *1

BLOCK II

S.P.P.[4] 02 INC/DEC[5] +002 TITLE[6] WEWPRT WEAPSYS PRIORITY 03

BLOCK III

S/S[8] 2 *2 P.E.[9] 24411N *3 AFF ACTIVITY[10] 1 0595117900 *4 UIC[11] 1 58179 *5

2 2

CHANGE TYPE[12] 2 *6 3 3

USING ACTIVITY[13] 4 4

START YEAR[14] 5 5

BLOCK IV

15 OEGW	16 BILLET SEQUENCE NUMBER	17 DESIG RATING	18 PAY GRADE	19 PRI. NOBC NEC	20 REQUIREMENTS FY 77	FY 78	FY 79	FY 80	FY 81	FY 82
2		ETN	E4	1536			+2	+2	+2	+2
2		RM	E4	2304			-2	-2	-2	-2
2		AM	E4				+3	+3	+3	+3
2		AM	E7	2313			+1	+1	+1	+1
2		EM	E4	4613			+2	+2	+2	+2
2		EM	E5				+1	+1	+1	+1
2		EM	E7				-1	-1	-1	-1
1		1400	03	9222			+1	+1	+1	+1

30 SEPTEMBER 1975

EXAMPLE 3

The manpower of the CSGN will look similar to that of the CGN 40 class. The first CSGN will be introduced in FY 80. It is requested for POM 78.

*1 CSGN has not yet been assigned an activity code, therefore the name is entered.

*2 CHANGE TYPE = 4 because the quality is similar to the CGN 40, whose quality will be retrieved.

*3 The activity code of the CGN 40 is entered, so that the quality and quantity can be retrieved.

*4 Additional quality and quantity may be entered in order to define the CSGN more exactly.

EXAMPLE 3

BLOCK I

SPONSOR [1] 03 CLAIMANT [2] 60 REASON [3] SPP

BLOCK II

S.P.P. [4] 03 INC/DEC [5] +001 TITLE [6] AEQ FOR 2 CSGN PRIORITY 02

BLOCK III

S/S [8] 2 P.E. [9] 24291N AFF ACTIVITY [10] UIC [11]

1 CSGN A *1 1

2 CSGN B 2

CHANGE TYPE [12] 4 *2 3 3

USING ACTIVITY [13] 038200400 0 *3 4 4

START YEAR [14] 80 5 5

BLOCK IV

[15] EGW	[16] BILLET SEQUENCE NUMBER	[17] DESIG RATING	[18] PAY GRADE	[19] PRI. NOBC NEC	[20] REQUIREMENTS FY 77	FY 78	FY 79	FY 80	FY 81	FY 82
2		EW	E4	1489		*4		+ 2	+ 2	+ 2
2		EW	E7	1487				+ 1	+ 1	+ 1
2		EW	E8					+ 1	+ 1	+ 1

PROGRAM ELEMENT SPONSORS

The program element sponsor is the Deputy Chief of Naval Operations (DCNO) or Director of a Major Staff Office who is responsible for force composition, funding support, and programmed manpower for a specific program element. He is responsible for objectives and planned programs for the out-years, as well as for the development of Program Change Requests (PCRs).

SPONSOR CODE	CODE
01	Op-01 DCNO (Manpower)
02	Op-02 DCNO (Submarine Warfare)
03	Op-03 DCNO (Surface Warfare)
04	Op-04 DCNO (Logistics)
05	Op-05 DCNO (Air Warfare)
06	Op-06 DCNO (Plans & Policy)
10	Op-09B AVCNO/Director, Naval Administration
11	Op-09R Director, Naval Reserve
12	Op-91 Director, Information Systems Div.
14	Op-094 Director, Command Support Program
16	Op-095 Director, Antisubmarine Warfare and Tactical Electromagnetic Programs
18	Op-098 Director, Research, Development Test Evaluation
20	Op-099 Director, Naval Education & Training
21	Op-009 Director Naval Intelligence
22	Commandant of the Marine Corps
24	Oceanographer of the Navy
26	Comptroller of the Navy

MILITARY MANPOWER CLAIMANTS

For the purpose of this instruction, the military manpower claimant is the command, bureau, or office in the administrative chain of command assigned responsibility by the Chief of Naval Operations for management of military manpower requirements of assigned activities. The designated military manpower claimants are:

Claimant Code	Title
02	Central Operating Activity (COA)
11	Chief of Naval Operations (OP-09BF)
12	Deputy Comptroller of the Navy
14	Chief of Naval Research
15	Commander, Naval Intelligence Command
17	Commander, Naval Ordnance Systems Command
18	Chief, Bureau of Medicine and Surgery
19	Commander, Naval Air Systems Command
21	U. S. Army
22	Chief of Naval Personnel
23	Commander, Naval Supply Systems Command
24	Commander, Naval Ship Systems Command
25	Commander, Naval Facilities Engineering Command
27	Commandant of the Marine Corps
29	Secretary of Defense/Chairman, Joint Chiefs of Staff
30	Director, Strategic Systems Project Office
33	Commander, Military Sealift Command
37	Chief of Naval Material
39	Commander, Naval Electronic Systems Command
42	Director, Defense Nuclear Agency
43	Director, Defense Communication Agency
44	Director, Defense Intelligence Agency

45	Director, National Security Agency
48	Director, Defense Mapping Agency
49	Director, Defense Investigative Service
51	Director, Defense Supply Agency
57	U. S. Air Force
60	Commander in Chief, U.S. Atlantic Fleet
61	Commander in Chief, U.S. Naval Forces, Europe
62	Chief of Naval Training
63	Commander, Naval Communications Command
64	Commander, Naval Weather Service Command
65	Oceanographer of the Navy
67	Commander, Naval Surface Reserve
69	Commander, Naval Security Group Command
70	Commander in Chief, U.S. Pacific Fleet
71	Commander, Naval Air Reserve
78	Director of Navy Laboratories
86	Reimbursable
99	Specific claimant not yet identified

PRIORITY CODES - Instructions

Below are found two matrices: One to be used for judging priorities of increments and one for decrements. Select the cell which most accurately defines the priority and enter on the form the code found there.

PRIORITY CODES: OFFICER/ENLISTED

INCREMENTS

CATEGORIES OF URGENCY / CNO PRIORITIES	DIRECT FLEET READINESS	INCREASE COMBAT CAPABILITY OF EXISTING FLEET	ACQUIRE REPLACEMENTS OR ADDITIONS TO THE FLEET	INDIRECT READINESS
FACT OF LIFE	1	2	3	4
CRITICAL DEFICIENCY	5	6	7	8
HIGH PRIORITY	9	10	11	12
PRIORITY	13	14	15	16

PRIORITY CODES: OFFICER/ENLISTED

DECREMENTS

CATEGORIES OF CONSEQUENCES / CNO PRIORITIES	INDIRECT READINESS	ACQUIRE REPLACEMENTS OR ADDITIONS TO THE FLEET	INCREASE COMBAT CAPABILITY OF EXISTING FLEET	DIRECT FLEET READINESS
FACT OF LIFE	1	2	3	4
EFFICIENCIES	5	6	7	8
OFFSETS FOR CRITICAL DEFICIENCIES OR HIGH PRIORITY INCREMENTS	9	10	11	12
MODERATE CONSEQUENCES	13	14	15	16
SERIOUS CONSEQUENCES	17	18	19	20

NOTE: Pages 17 through 27 containing valid OFFICER designators and ENLISTED RATINGS have been omitted for the sake of brevity.

APPENDIX C

DELTA QUERY - USER'S GUIDE

INDEX

		Page
1.0	PROGRAM DESCRIPTION	1
2.0	COMMANDS	1
2.1	SETD	1
2.2	SETB	1
2.3	SHOW	2
2.4	LIST	4
2.5	PRNT	7
2.6	SUMI	8
2.7	RATE	9
2.8	FLAG	10
2.9	END	11
3.0	TIME SHARING OPTION (TSO)	11
3.1	Summary	11
3.2	LOGON Procedure	12
3.3	Executing DELTAQ	12
3.4	LOGOFF Procedure	12
4.0	SAMPLE SESSION	13

1.0 Program Description

1.1 The Delta Query System is one of two interactive information retrieval modules and interfaces with the IDMS database. Its function is two fold:

- It allows the user to query a specific delta for billets which meet specific criteria and to array the output in one of several ways.
- It allows the user to define a DELTAXX for subsequent extraction or query by flagging or unflagging specified INC/DEC's.

2.0 Commands

2.1 SETD [X]

where X = a one or two digit delta number between 1 and 30.

Description:

The SETD command is used to specify the delta or reset the delta. If no 'X' is specified, the current delta will be displayed.

Keyword Specification:

X

Examples:

SETD 20

(Reply) Delta Reset to 20

SET D

(Reply) Present Delta is 20

Special Considerations:

Only billets which are market as belonging to the specific delta will be considered when querying.

NOTE: Items shown in brackets are optional. The brackets themselves do not comprise a part of the command.

2.2 SETB [AAA]

where AAA = one of the 5 valid 3 character keywords.

Description:

The SETB command is used to restrict the query to a specified base. Optionally, the present base will be displayed if no keyword is specified.

Keyword Specification:

Valid Keywords are:

ENL - Enlisted
OFF - Officer
GSC - General Service Civilian
WBC - Wage Board Civilian
ALL - All of the above.

Examples:

SETB ENL

(Reply) Base Reset to ENL

SETB

(Reply) Present Base is ENL

Special Considerations:

Only billet counts from records which meet the specified base will be considered in the query. If 'ALL' is used, all records will be considered regardless of base.

2.3 SHOW SPP (X/Y)

Description:

The show command will list by SPP each increment-decrement in the data base and it's character title. If no SPP is specified or the keyword 'SPP' is left off, all will be displayed. One SPP or a range of SPP's may be specified using the SPP keyword.

Copy available to DDC does not
permit fully legible reproduction

2.3.1 Examples:

```
COMMAND?: show spp(6)

SPP     SID     SPONSOR        TITLE
06      +001    OP-098         CLOVER OFFICER

.
.
.

COMMAND?: show spp(6/7)

SPP     SID     SPONSOR        TITLE
06      +001    OP-098         CLOVER OFFICER
07      +001    OP-02          TRIDENT SODY
        +003    OP-02          MISSILE CONVERS
        +004    OP-02          TRIDENT MONITOR
        +005    OP-02          SFOC PROGRAM
        +006    OP-02          SUPPLY SUPPORT
        +007    OP-02          FBM COMBATSYSTE
        +008    OP-02          SUBM RINE TRNC
        +009    OP-02          STRIKER ASST(3)
        +010    OP-02          REFIT SITE SUPT½

.
.
.
.
.

COMMAND?: show

SPP     SID     SPONSOR        TITLE
01      +301    OP-03          AGHS F480
        -301    OP-03          AO BILLET EXCES
        -302    OP-03          AO BILLET EXCES
        -306    OP-03          INAC ARS EARLY
        -307    OP-03          INAC ARS EARLY
        -308    OP-03          AE'S TO NRF
        -309    OP-03          AE'S TO NRF
        -310    OP-03          INACT AE59
        -311    OP-03          INACT SIX ATF
        -312    OP-03          TWO ATFS TO NRF
        -313    OP-03          INACT AR-28
        -500    OP-04          SPC COMBAT SUPP
        -501    OP-04          NAVCONSFORC
02      +005    OP-04          PHYSICIANS ASST
        +006    OP-04          PHYSICIANS ASST
        +007    OP-04          PHYSICIANS ASST
        +008    OP-04          PHYSICIANS ASST
        +009    OP-04          PHYSICIANS ASST
        +010    OP-04          PHYSICIANS ASST
        +011    OP-04          PHYSICIANS ASST
        +012    OP-04          PHYSICIANS ASST
        +013    OP-04          PHYSICIANS ASST
        +014    OP-04          PHYSICIANS ASST
        +015    OP-04          PHYSICIANS ASST
```

Copy available to DDC does not
permit fully legible reproduction

Keyword Specification:

'SPP' is the only keyword allowed and is optional. If not specified, all SPP's will be listed.

Special Considerations:

None

2.4 LIST KEY_i [(X [/Y])]

Where KEY_1 is a valid 3 character abbreviation

X is an optional number
Y is an optional number

Description:

This list command allows the user to query the data base through a fixed sequence of keywords and optional ranges associated with each keyword. See pp. 6 for allowed sequences of keywords. Billets are displayed in successively finer levels of detail as additional valid keywords are added to each of the 1st three entry keywords. No additional keywords are allowed for entry keyword 'NEC'. The four entry keywords are:

SPP
PEN
RDS
NEC (No additional keywords allowed)

Keyword Specification:

Exceptions to the following general discussion on keyword usage will be listed for each keyword following the discussion.

In general, each keyword may be followed by an optional parenthesized range specification of the form:

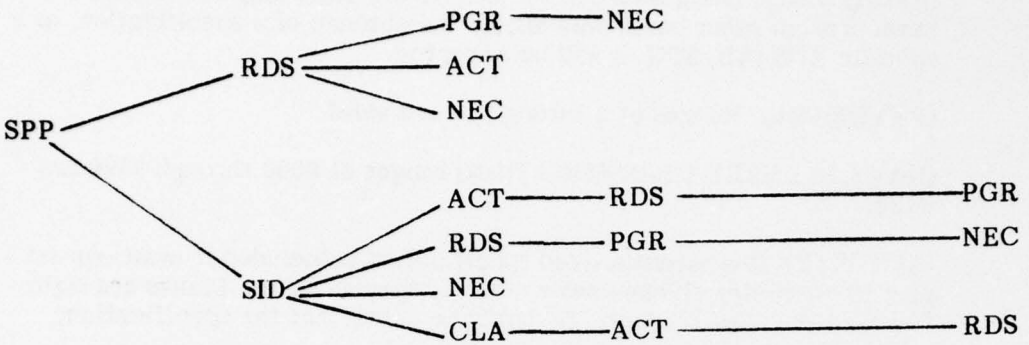
KEY (X/Y)

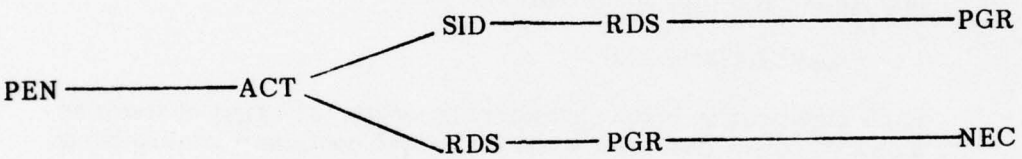
Where X = an appropriate starting value for a range specification or, if no '/Y' is specified, the value the record must have for the key specified before it may be reconsidered.

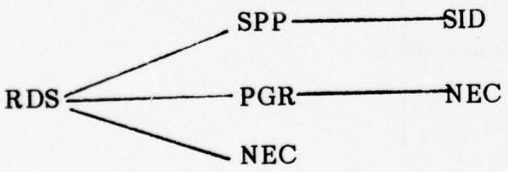
'/Y' = if used, indicates the inclusive maximum value the record may have specified before it may be considered.

If no range specification is indicated, all records are considered. Each keyword and its optional range is seperated by a comma (',') or space character.

THE FOUR ENTRY KEYWORDS AND THEIR VALID EXTENSIONS ARE:







NEC

DISCUSSION OF SPECIFIC KEYWORDS AND EXCEPTIONS:

SPP — Ranges of 1 through 15 are valid

RDS — (Rating (ENL), Designator (OFF) Ranges are valid only for officer (OFF) base. For all other bases only all, by the absence of a specification, or a specific RDS (AB, STG...) will be accepted.

PGR — (PAYGRADE) Ranges of 1 through 99 are valid

NEC — (NAVY ENLISTED CLASSIFICATION) ranges of 0000 through 9999 are valid.

ACT — (ACTIVITY) If a parenthesized specification is included it must consist of a 10 character alphanumeric activity specification. Blanks are significant in the specification. It should be noted that the specification:

(ABCD 12345)

is different from the specification:

(ABCD12345....45)

Each specification is ten characters in length. The first contains an embedded blank character while the second contains a trailing blank character.

SID — (INCREMENT - DECREMENT) Ranges from -999 to +999 are valid

PEN — (PROGRAM ELEMENT NUMBER) Ranges from 0 to 99999 are valid

CLA — (CLAIMANT) ranges from 0 to 99 are valid

Examples:

(Assume Set B = ENL)
List SPP (3), RDS (ETN), PGR (4/9)

Extract all Billet Counts for SPP 3 with the rating ETN for paygrades 4 through 9.

LIST PEN, ACT

Extract all program element numbers and list all activities present within each with associated billet counts

(Assume SETB = ENL)
LIST RDS, SPP

Extract billet counts for all ratings and list by SPP within each rating.

Special Considerations:

Caution must be used with commands which have the potential for producing voluminous output. For instance

LIST SPP, RDS, PGR

in its unqualified form (no ranges specified defaults to all for each keyword) will produce one line of output for each paygrade within each rating within each SPP. With the potential of 9 SPP's, 105 ratings within each SPP,and up to 9 paygrades within each rating, one could get up to 8500 lines of output with all categories filled. For queries such as this it is suggested that the PRNT command be used.

For online queries it is suggested that appropriate ranges be specified. For instance:

LIST SPP (3), RDS, PGR (4/7)

would produce a maximum of 420 lines of output, but more likely much less since it is not probable that all ratings would contain all paygrades.

2.5 PRNT KEY_i [(X [/Y])]

where KEY_i is a valid 3 character abbreviation.
X is an optional number
Y is an optional number

Description:

The PRNT command uses identical keywords and rules as the LIST command. Refer to the LIST command for a description of available options.

The PRNT command produces a batch type job which normally begins execution shortly after the interactive session ends. It should be used where large amounts of output are expected or immediate results are not necessary. Upon entering the command, syntax and range checks are made. If no errors are detected, the command, along with other necessary information are written to a file and the message 'command accepted' is issued. The output of the batch job will contain the date, time, delta base, and command line prefixed to each set of output.

Keyword Specification:

Refer to explanation under the LIST command.

Examples:

(ASSUME SETB=OFF)

PRNT, SPP, RDS, PGR

Produce a batch listing of billet counts for all paygrades for each officer designator within each SPP.
(ASSUME SETB = ENL)
PRNT SPP, SID (-10/+10), RDS, PGR, NEC

Produce a batch listing of billet counts by Navy enlisted classification, within each paygrade for each rating. Additionally, use only records whose increment decrement falls in the range -10 to +10. Order the listing by SPP and produce a listing for each SPP present in the data base.

Special Considerations:

This command is generally used for queries which are expected to produce large amounts of output or where quick response is not necessary. Overnight or faster service can generally be expected for the PRNT command.

2.6 SUMI KEY,...,KEY
$SUM_i (\pm) SUM_j ...(\pm) SUM_n$

Where I = a single digit 0 through 9 or the alpha character 's'.

KEY: = Any valid series of key words and ranges as specified under the LIST command.

SUM_i = a series of 'SUM' keywords (up to a maximum of 9) suffixed with a unique index and prefixed with a '+' or '-' sign. If no sign is indicated, '+' will be assumed.

Description and Keyword Specification:

The Sum Command Employs Three Basic Forms:

(1) SUM_i KEY,...,KEY

Displays and stores the sum under the index i for the combination of keywords specified. Keywords are the same as those under the LIST command.

(2) $SUM_i (\pm) SUM_j,..., (\pm) SUM_n$

Displays and stores the sum under the index i after performing the indicated addition and subtraction. Each index must be in the range 0 to 9 and must be unique for each entry of the command (SUM0 = + SUM1 - SUM2 + SUM1 would be invalid) because the index '1' is used more than once.

(3) SUMS

Displays all the SUM_i counts presently stored for each index i along with a description derived from the first 40 characters of the command line excluding the command itself. (No Key used for SUMS command)

Examples:

SUM5 SPP, RDS (ETN)

(ASSUME SETB = 'ENL')

Sum billet counts which qualify under the keywords and ranges specified, store the totals under index 5, and print the totals at the terminal.

SUM3 SUM1 - SUM2 + SUM4

Subtract (by year) the six years of billet counts stored under index 2 from those stored under index 1; Add those stored under Index 4, store the result under Index 3 for each of the 6 years: print the result at the terminal.

SUMS

List for each Index 0 through 9 the description and billet counts, if any, stored for that index.

Special Considerations:

None

2.7 RATE SUM_i SUM_j

Where i & j are indicies in the range 0 through 9.

Description:

The RATE command computes the quotient to 5 decimal places by year of the billet counts stored under index i divided by the billet counts stored under index j. The six quotients are not retained by DELTAQ. Attempted division by zero will yield a zero quotient.

Keyword Specifications:

Only two key words are allowed and are mandatory. For user clarification, the keywords may be separated by the slash ('/') character, but is not required.

Examples:

Rate SUM1 SUM2
(WHERE SUM1, SUM2 have been previously defined with the SUM command)

Divide the six years of billet counts stored under Index 1 by the six years of billet counts stored under Index 2 and print the results at the terminal. If SUM2 contains any zeros, the corresponding result will contain zeros.

Special Considerations:

None

2.8 FLAG

Description:

The FLAG command invokes a separate routine which allows the user to FLAG (UNFLAG) INCREMENT-DECREMENTS by SPP number and DELTA.

The DELTA FLAG routine embodies its own set of commands in much the same manner as the main routine.

SETD [X]
The SETD command sets the appropriate DELTA to be flagged where X is an optional 2 digit number. This command, though exactly the same in syntax as the SETD command described in Section 2.1, is used only by the FLAG routine and must be initialized each time the FLAG routine is entered. As in the main-routine, if no DELTA is specified, the present DELTA will be displayed.

SPP [X]

The SPP command sets the particular SPP to which the increment-decrements entered in the FLAG command are to apply. Optionally, if no 'X' is specified, the present SPP will be displayed.

FLAG/UNFL ($\pm$) XXX/ ($\pm$) YYY, ($\pm$) ZZZ

The FLAG/UNFLAG command will FLAG or UNFLAG the INCREMENT-DECREMENTS specified for the DELTA and SPP specified in the SETD and SPP commands. The INCREMENT-DECREMENT list specified may consist of individual numbers separated by commas and/or ranges or INCREMENT DECREMENTS separated by slashes, each complete range specification being separated by a comma.

Optionally, the word 'FILE' may be substituted for the increment-decrement list. In this case, the routine will read SPP INC/DEC combinations off a file and perform FLAGGING/UNFLAGGING based on the contents of the file. (B-K Dynamics should be consulted prior to each use of this command).

In either case, at the conclusion of each flag command, a list of INCREMENT/DECREMENTS FLAGGED/UNFLAGGED will be displayed followed by an optional list of those which were not found under the SPP specified. This list will not appear if all INCREMENT-DECREMENTS were found.

EXAMPLES: (ASSUME SETD 01, SPP, 05)

FLAG + 301, -215, +212/220, +300
FLAG the individual INC/DECs +301, -215, +300, and all in the range from +212 to +220 inclusive, in DELTA 01 for SPP 05.

FLAG FILE

Read in SPP-INC/DEC combinations from the standard input file (SIDS) and FLAG. B-K Dynamics should be contacted for instructions on setting up the file before using this command. The SPP need not be set before using this command.

UNFL -20/+112, +115, -300

UNFLAG all INC/DECs in the inclusive range -20 to -112 and +115, -300. For the DELTA and SPP previously set.

COPY XX

The COPY command works against a previously set DELTA and SPP specified. It will copy the FLAG from the DELTA 'XX' to the DELTA specified in the SETD command. The message 'COPY COMPLETE' will be issued upon completion of the copy.

2.9 END

Description:

The END command halts execution of DELTAQ, submits a job for batch processing if the PRNT command was used during the session, and returns control to TSO for execution of other on-line routines.

Keyword Specification:

None

Example:

END

Terminate the present DELTAQ session, submit a batch job if the PRNT command was used, return control to TSO.

Special Considerations:

None

3.0 Time Sharing Option (TSO)

3.1 Summary

The interactive programs within the MINI-NAMPS System are executed using the Time Sharing Option of OS. In conversational mode, execution starts as soon as you send the instruction from the terminal, and results are printed at the terminal as soon as the program produces them. This section describes the commands necessary to:

- Identify yourself to the system
- Define characteristics of the session
- End your terminal session.

3.2 LOGON Procedure

a) The first thing you must do to begin a terminal session is to establish communication with the NIH computer facilities. This is dependent on the type of terminal and coupling system available for the user. Since telephone numbers change periodically, it is suggested that users refer to recent issues of the NIH publication INTERFACE or call the NIH Computer Center for current telephone numbers.

b) Once your terminal has received a signal, type LOGON followed by identification information in the following format:

LOGON	aaaaiii/ttt/bbb	REGION (nnn)
where:	aaaa	is your account code
	iii	are your initials
	ttt	is the terminal identification number
	bbb	is the account box number
	nnn	is the core storage required (300 is required to execute PLOTC and DELTAQ)

after typing in the appropriate information hit the carriage return button on your terminal.

c) The system will prompt you for your keyword on the next line as follows:

KEYWORD? key

where: key is your designated keyword

after typing your keyword, hit the carriage return button.

3.3 Executing DELTAQ

To execute the interactive program DELTAQ simply type EXEC DELTAQ and hit carriage return. The program will execute and commands should be input according to the formats described in the users' guide.

3.4 LOGOFF Procedure

End your terminal session by typing LOGOFF followed by a carriage return. The command will display billing information for the session; display date, time, and length of session; and disconnect your terminal from TSO.

Copy available to DDC does not permit fully legible reproduction

4.0 SAMPLE SESSION

```
IKJ54012A ENTER LOGON -
LOGON WEU2GSX/N88/386
KEYWORD? [illegible]
WEU2GSX LOGON IN PROGRESS AT 15:39:46 ON JUNE 29, 1976
 NIH/DCRT/CCB - * * M U S * * - TSO
 PLEASE REPORT ALL PROBLEMS VIA PTR
 11:30 AM 6/21/76 ALL MVS JOBS IN PRINT HOLD HAVE BEEN PRINTED LOCAL
 $PUBLIC.MVS.NOTES UPDATED TO INCORPORATE INTERFACE#63
TSO LINE 17E
READY
EXEC DELTAQ

DELTA QUERY
WHICH DELTA (SETD)?: 02

FOR WHICH BASE (SETB)?: ENL


COMMAND?: SHOW SPP(01)

SPP      SID      SPONSOR        TITLE
01       -301     OP-03         AO BILLET EXCES
         -302     OP-03         AO BILLET EXCES
         -306     OP-03         INAC ARS EARLY
         -307     OP-03         INAC ARS EARLY
         -308     OP-03         AE'S TO NRF
         -309     OP-03         AE'S TO NRF
         -310     OP-03         INACT AF59
         -311     OP-03         INACT SIX ATF
         -312     OP-03         TWO ATFS TO NRF
         -500     OP-04         SPC COMBAT SUPP
         -501     OP-04         NAVCONSFORC

COMMAND?: LIST SPP(01),RDS(BM),PGR

SPP        RDS      PGR                FY77  FY78  FY79  FY80  FY81  FY82
01         BM        3                  +0    -1    -1    -1    -1    -1
                     4                  +0   -34   -30   -23   -23   -22
                     5                  +0   -23   -17   -10   -10   -10
                     6                  +0   -26   -19   -12   -12   -12
                     7                  +0    -5    -3    +0    +0    +0
                     8                  +0    -6    -6    -5    -5    -5
                     9                  +0    -2    -1    -1    -1    -1

COMMAND?: SETB OFF

BASE RESET TO  OFF

COMMAND?: SETD 20

DELTA RESET TO 20
```


Copy available to DDC does not permit fully legible reproduction

```
COMMAND?: LIST RDS,SP                -313)

RDS       SPP       SID                    FY77  FY78  FY79  FY80  [illegible]  [illegible]
1110      [illegible]    OP-03  -313            +0    -8    -8    -8
1410                                         +0    -1    -1    -1
2100                                         +0    -1    -1    -1
2200                                         +0    -3    -3    -3
3100                                         +0    -4    -4    -4    -4    -4
4100                                         +0    -1    -1    -1    -1    -1
6110                                         +0    -1    -1    -1    -1    -1
6130                                         +0    -2    -2    -2    -2    -2
7110                                         +0    -1    -1    -1    -1    -1
7130                                         +0    -3    -3    -3    -3    -3
7140                                         +0    -1    -1    -1    -1    -1
7160                                         +0    -1    -1    -1    -1    -1
7180                                         +0    -1    -1    -1    -1    -1
7410                                         +0    -1    -1    -1    -1    -1
7510                                         +0    -1    -1    -1    -1    -1

COMMAND?: SUM1 SPP(01)

SUM1 =                                       +0  -140  -127   -92   -87   -77

COMMAND?: SUM2 SPP(02)

SUM2 =                                       +0   +94  -103   -97   -95   +45

COMMAND?: SUM3 SUM1+SUM2

SUM3 =                                       +0   -46  -230  -189  -182   -32

COMMAND?: FLAG

DELTA FLAG

FLAG COMMAND?: SPP 01
SPP SET TO 01

FLAG COMMAND?: SETD 02
DELTA SET TO 02

FLAG COMMAND?: UNFL -301,-302,

UNFLAGGED:
          -301 -302


FLAG COMMAND?: FLAG -301,-302,

FLAGGED:  -301 -302


FLAG COMMAND?: END

END DELTA FLAG

COMMAND?: END

END          [illegible] 51.02.696  76/06/29
REF
```

APPENDIX D

SUPPORT GENERATION

Manpower Support Computations - MINI-NAMPS (POM 78)

Annually, the Navy reassesses its enlisted manpower requirements during the Program Objectives Memorandum or POM cycle. The requirements are individually defined as billets, each identified by a skill category, called a rating, and a pay grade or rank. These requirements describe a fully operational Navy; however, the authorized level of funding during peace time dictates a somewhat lower level of manning.

As the manpower reassessment proceeds, several alternative mixtures of requirements are considered, in search of the best combination of billets to be authorized for funding. This process of generating alternatives is performed by the Navy's Mission Sponsors.

As the sponsors generate alternative billet configurations by incrementing or decrementing billet requirements, a set of support billets must also be adjusted. This "support tail" can be effected by the various changes in the mission oriented requirements. The number of support billets in any activity can be effected by billet adjustments in another activity. Figure 1 graphically represents how complicated these relationships can become. Billets can also be categorized by skill requirements. Figure 2 shows relationships which may occur when skill requirements are altered.

During the Program Objectives Memorandum (POM) cycle, billets are grouped by program element (PE) for budgetary analysis. Figure 3 shows how support relationships may exist between these program elements. In addition to support changes across PE's, these changes also effect support billets in years following the initial adjustments, (see Figure 4).

MINI-NAMPS (POM 78)

The Navy has a major ongoing effort called NAMPS. The acronym stands for Navy Manpower Planning System. NAMPS can efficiently be described by its stated goals;

1. Determine minimum manpower requirements to achieve operational and mission demands.
2. Provide staffing standards for functions performed ashore and afloat.
3. Support and justify Navy manpower requirements during all stages of the Planning, Programming, and Budgeting System.

4. Relate support requirements to changes in the operating forces.

5. Respond quickly to essential management queries.

6. Project requirements of future weapons systems upon the fleet.

7. Provide reliable manpower planning information.

A subset of NAMPS is presented in Figure 5, and was developed under the title of MINI-NAMPS (POM 78). Manpower changes, in the form of increments/decrements of billets, are entired into the system by mission sponsors, claimants, and the Manpower Requirements Coordination Panel (MRCP). The MRCP then determines a "delta", which is composed of several increment/decrements. This delta contains qualitized billets, i.e., billets identified by mission, ratings, paygrades, and fiscal year. The delta is then passed on to the "Support Subsystem", where a "support tail" is computed and merged with the original delta.

The Navy Resource Model, known as NARM, preforms closely related tasks to those done in MINI-NAMPS. The NARM is the primary tool used by the Navy's Budgeting and Planning organizations to reallocate resources, measured in terms of manpower and dollars, resulting from changes to force structures and support policies. The NARM's various outputs show changes in manpower and/or budgetary distributions only at the Program Element level of detail. The MINI-NAMPS system, on the other hand, excludes the Program Element level, and carries qualitized billets, defined by rating and pay grade, at the mission sponsor level. Both models perform their computations through the entire five year planning period. Support ratios are generated by the NARM using historical data. These support ratios give "support across budgetary categories" only. It is essential to the POM that the MINI-NAMPS billet end-strengths be in line with the NARM billet end-strengths, since both models start with the same billet requirements base. Because of this, it was decided that the NARM's support factors would be integrated into the MINI-NAMPS Support Generation System.

Support Algorithm

Last year, during POM-77, only two ratios were used to compute the number of support billets required for each increment or decrement of mission oriented billets. The determination about which of the two ratios was to be used depended on whether or not the requirements being revised were primarily support in nature.

This year, during POM-78, a much improved support algorithm was used. The final support ratios were derived from the NARM's support ratios, defining the "support tail" by program element and fiscal year, and the "quality ratios" computed from the enlisted requirements file, (see Figure 6).

These "quality ratios" provided a distribution of billets for each program element by mission sponsor, rating and paygrade. Each set of NARM support ratios was matched by program element with a set of quality ratios. The product of these two sets of ratios provided a complete set of ratios distributing the "support-tail" by sponsor, rating, paygrade, and fiscal year. These final ratios were then used to compute the "support tail", given a delta in the enlisted billet requirements.

Final billet requirements are normally stated in integer values. The ratios generated by the support subsystem can become very small fractions. These small fractions presented a problem when they were multiplied with a relatively small increment/decrements of billets. As the product was rounded-off, a significant number of the total manpower support values were rounded down to zero. In order to reduce the round-off errors, we used the algorithm shown in Figure 7.

The "loop" is an indexing procedure which sequenced all computations such that the round-off-error being carried over to the next computation would result in the best equitable redistribution of the billet quality. The "best equitable redistribution" was determined by answering the following question:

"If a mission sponsor was given a fraction of a support billet (i.e. the round-off error), to redistribute, where would he be most likely to add it?" The answer to this question produced the following list of priorities:

a) Add it to the next higher pay grade requirements
b) Add it to another rating requirement
c) Add it to the next fiscal year requirements
d) Add it to another sponsor's requirements.

This list of priorities determined the sequence of indicies used in the algorithm.

ACTIVITY ORIENTED SUPPORT

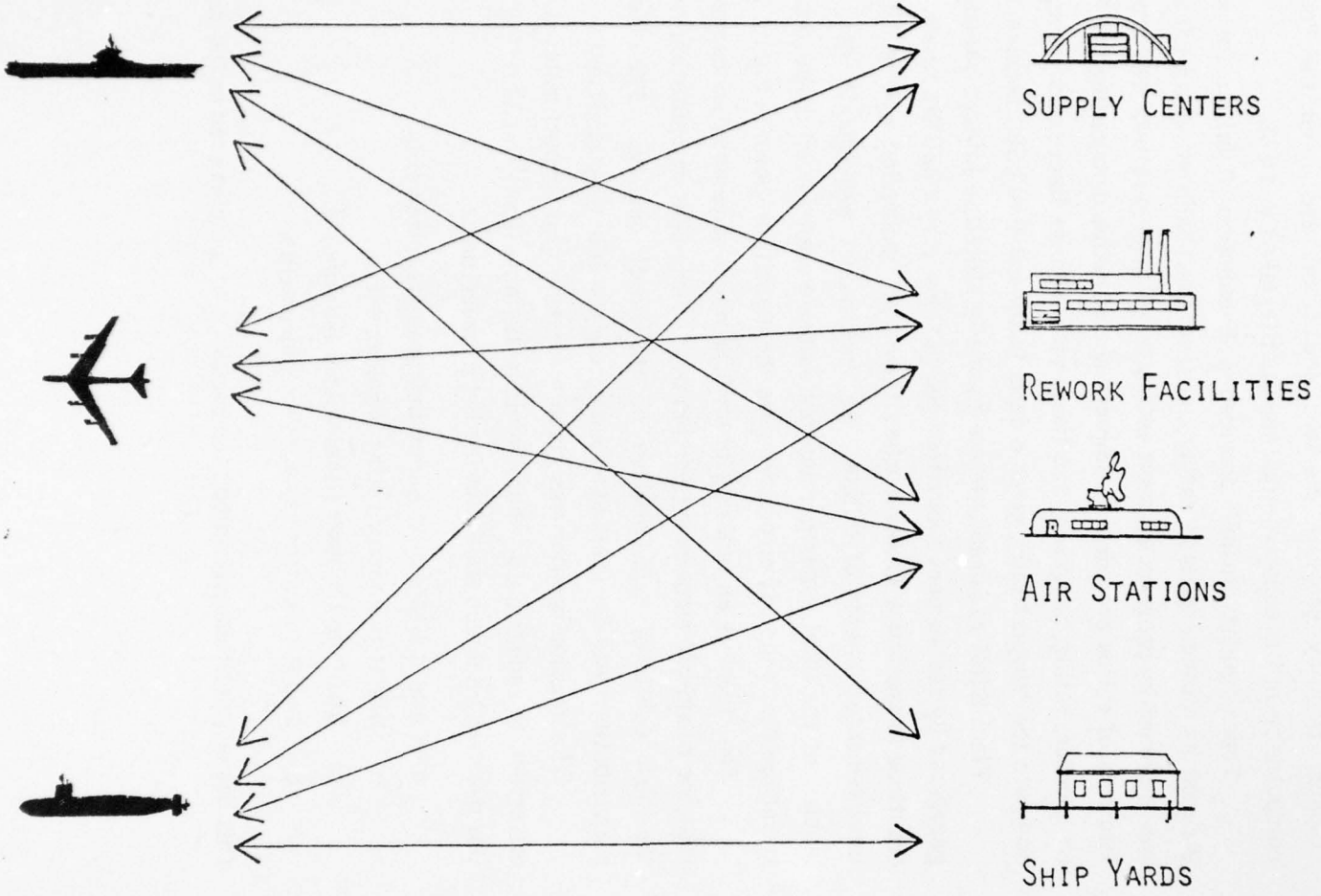


FIGURE 1

AD-A031 785 B-K DYNAMICS INC ROCKVILLE MD F/G 5/9
POM 78 MINI-NAMPS-CONCEPT AND OPERATION,(U)
SEP 76 C L LAKE
UNCLASSIFIED BKD-TR-3-208 N00014-76-C-0726
NL

2 OF 2
ADA031785

END

DATE
FILMED
12 - 76

SKILL CATEGORIES - SUPPORT

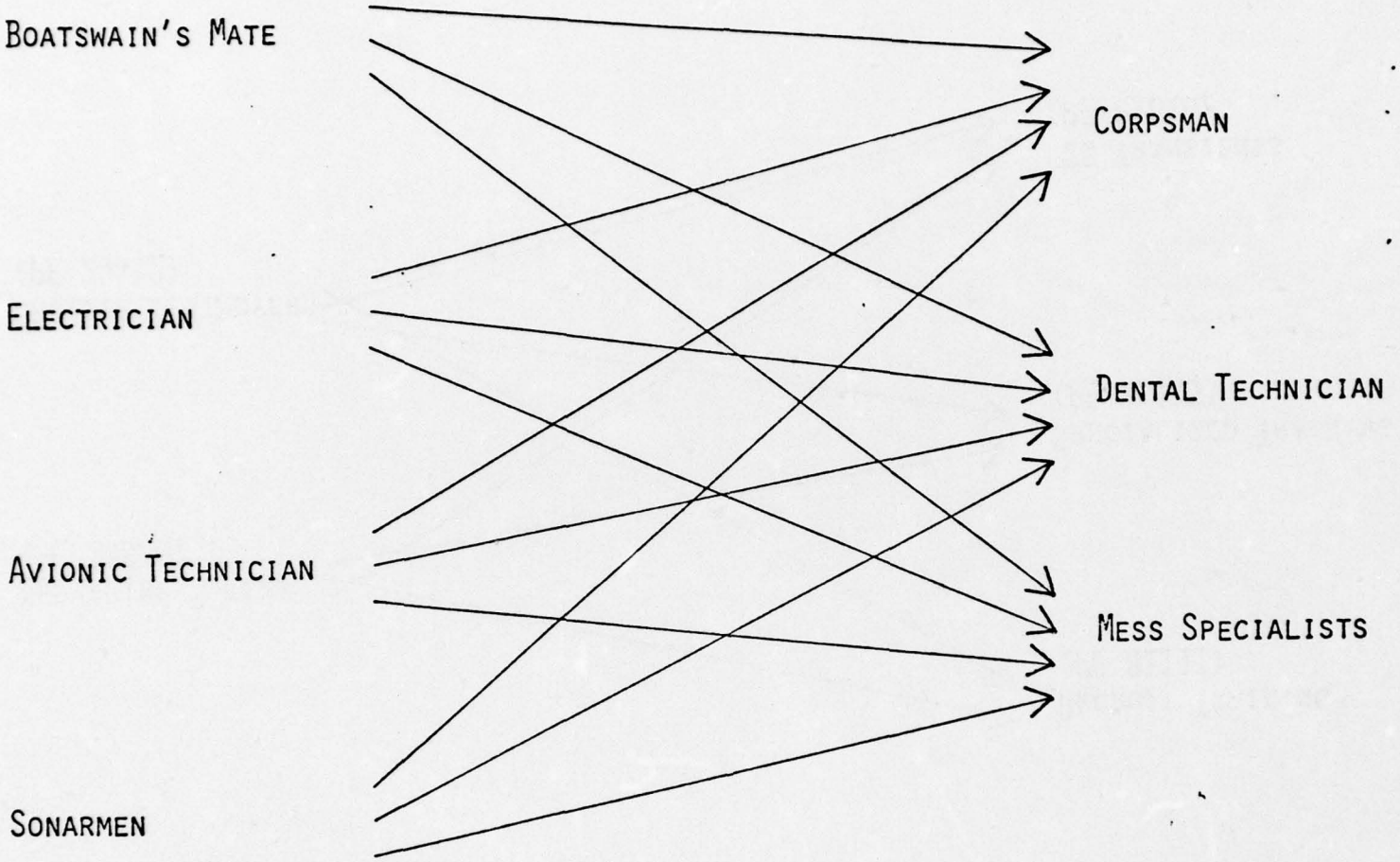


FIGURE 2

BUDGETARY PROGRAM ELEMENTS (PE)

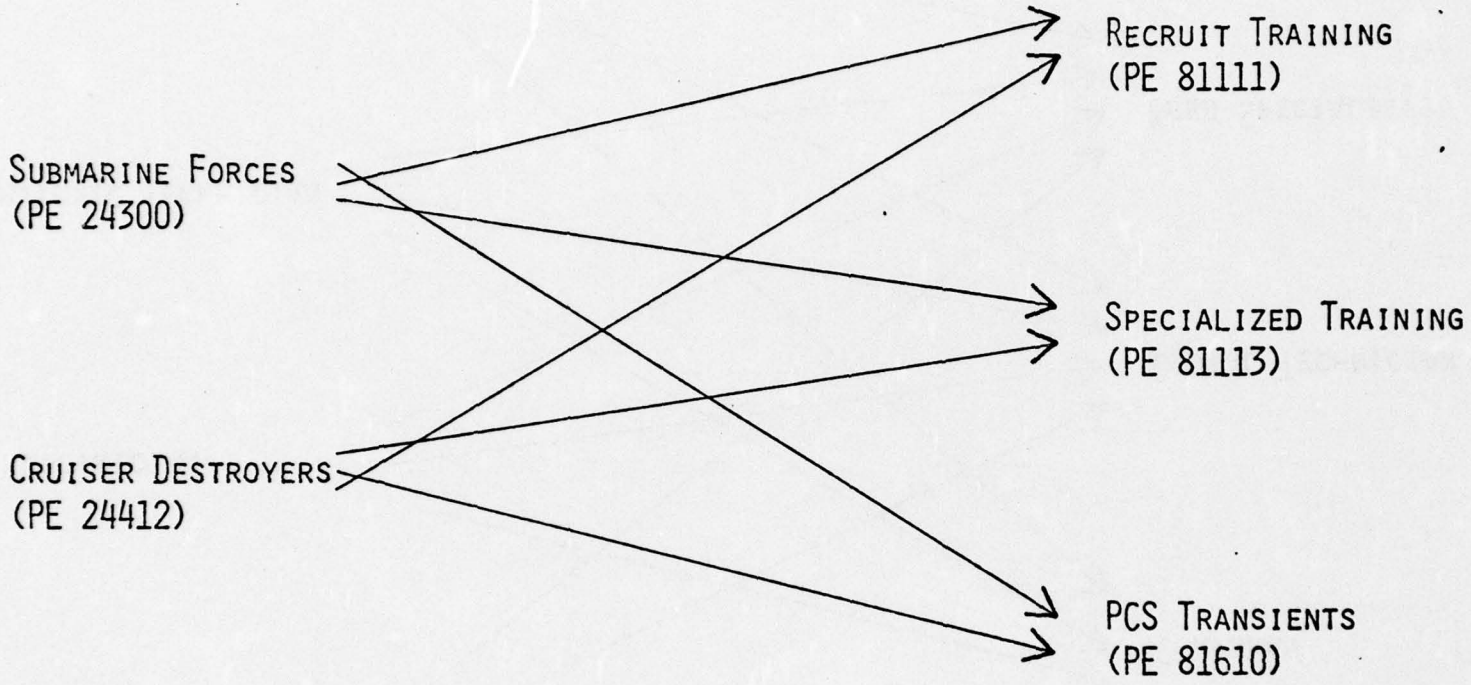


FIGURE 3

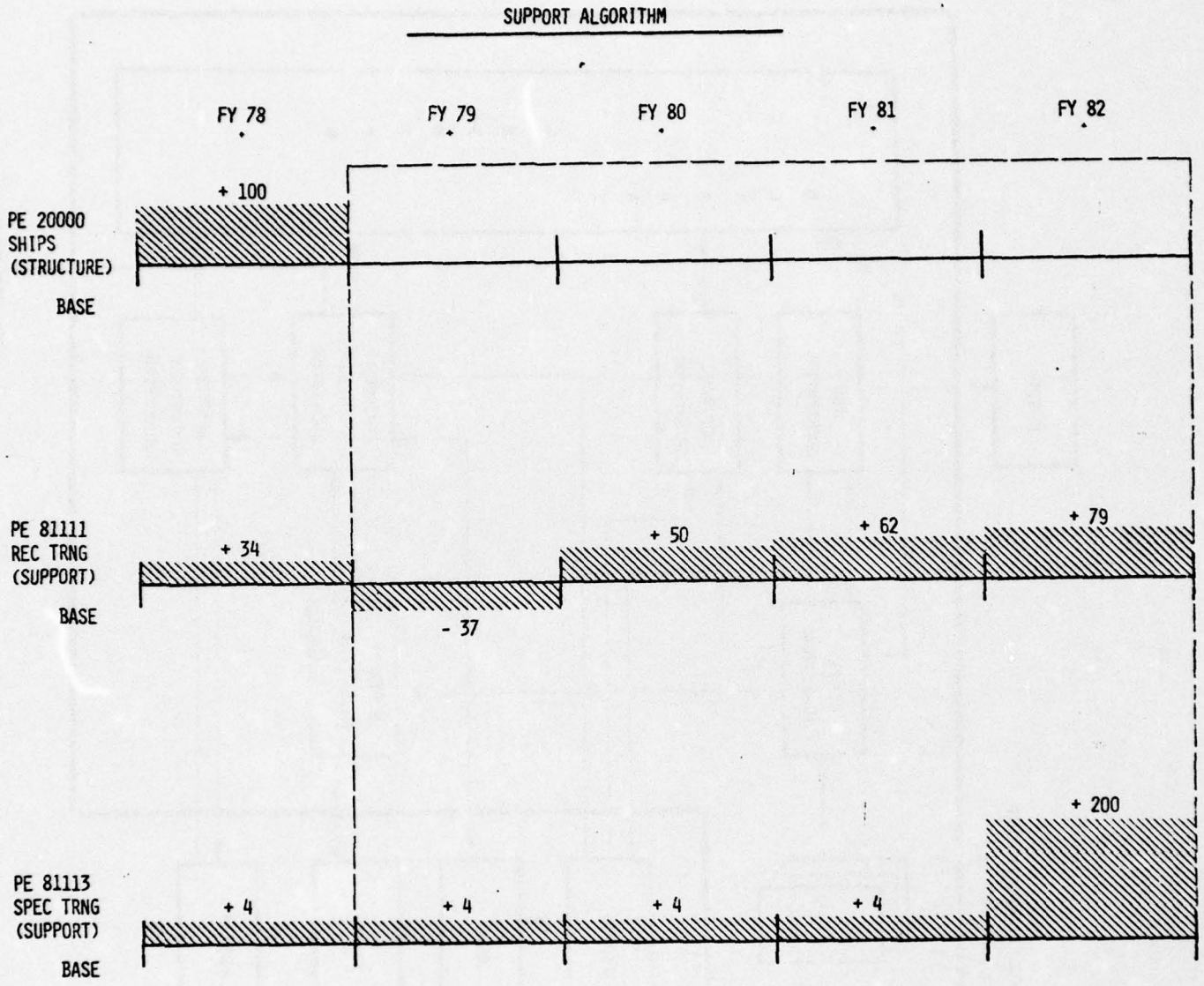

SUPPORT ALGORITHM
FY 78
FY 79
FY 80
FY 81
FY 82
+ 100
PE 20000
SHIPS
(STRUCTURE)
BASE
PE 81111
REC TRNG
(SUPPORT)
BASE
+ 34
- 37
+ 50
+ 62
+ 79
PE 81113
SPEC TRNG
(SUPPORT)
BASE
+ 4
+ 4
+ 4
+ 4
+ 200

FIGURE 4

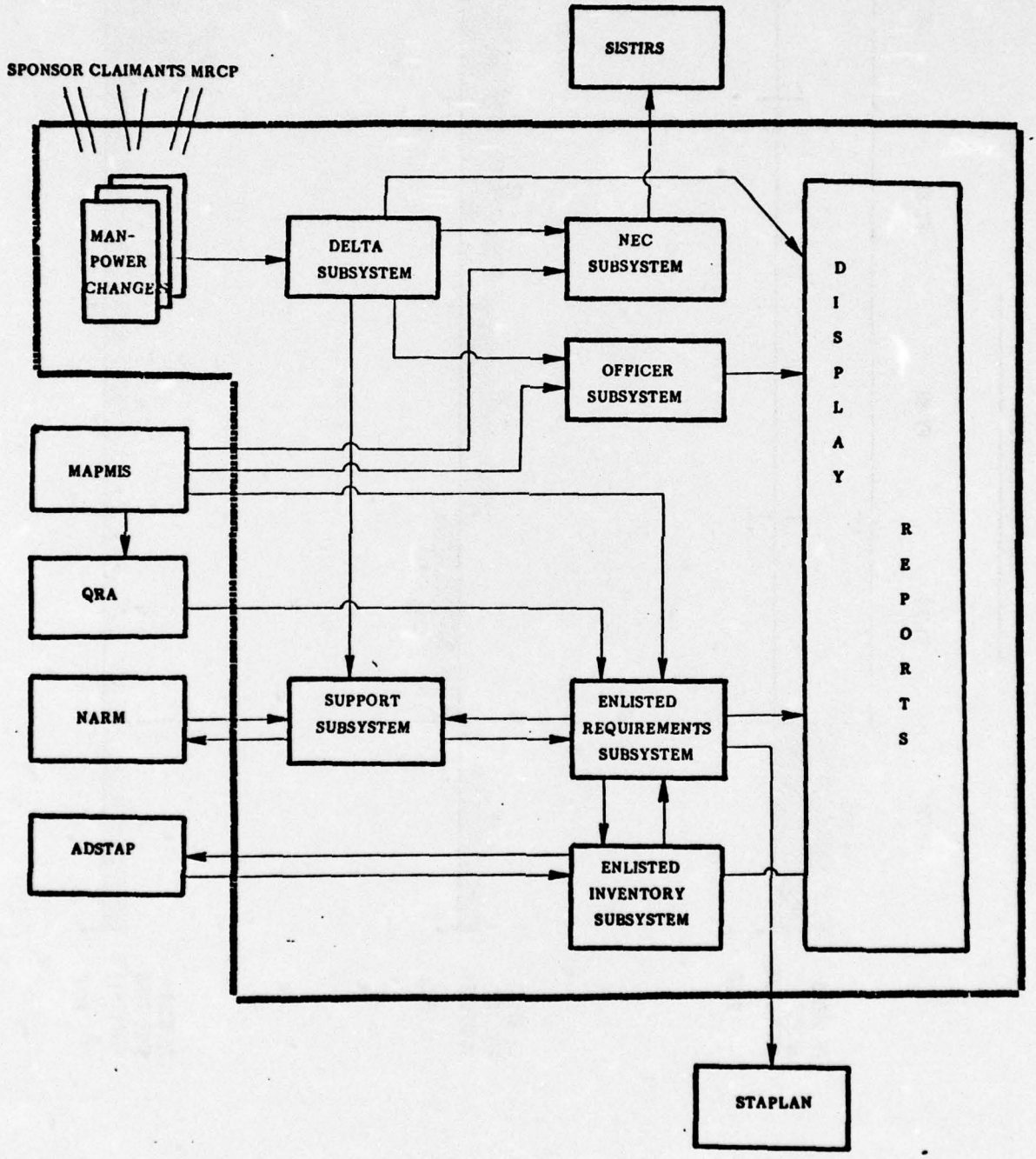

SISTIRS
SPONSOR CLAIMANTS MRCP
MAN-
POWER
CHANGES
DELTA
SUBSYSTEM
NEC
SUBSYSTEM
OFFICER
SUBSYSTEM
DISPLAY
REPORTS
MAPMIS
QRA
NARM
SUPPORT
SUBSYSTEM
ENLISTED
REQUIREMENTS
SUBSYSTEM
ADSTAP
ENLISTED
INVENTORY
SUBSYSTEM
STAPLAN

FIGURE 5

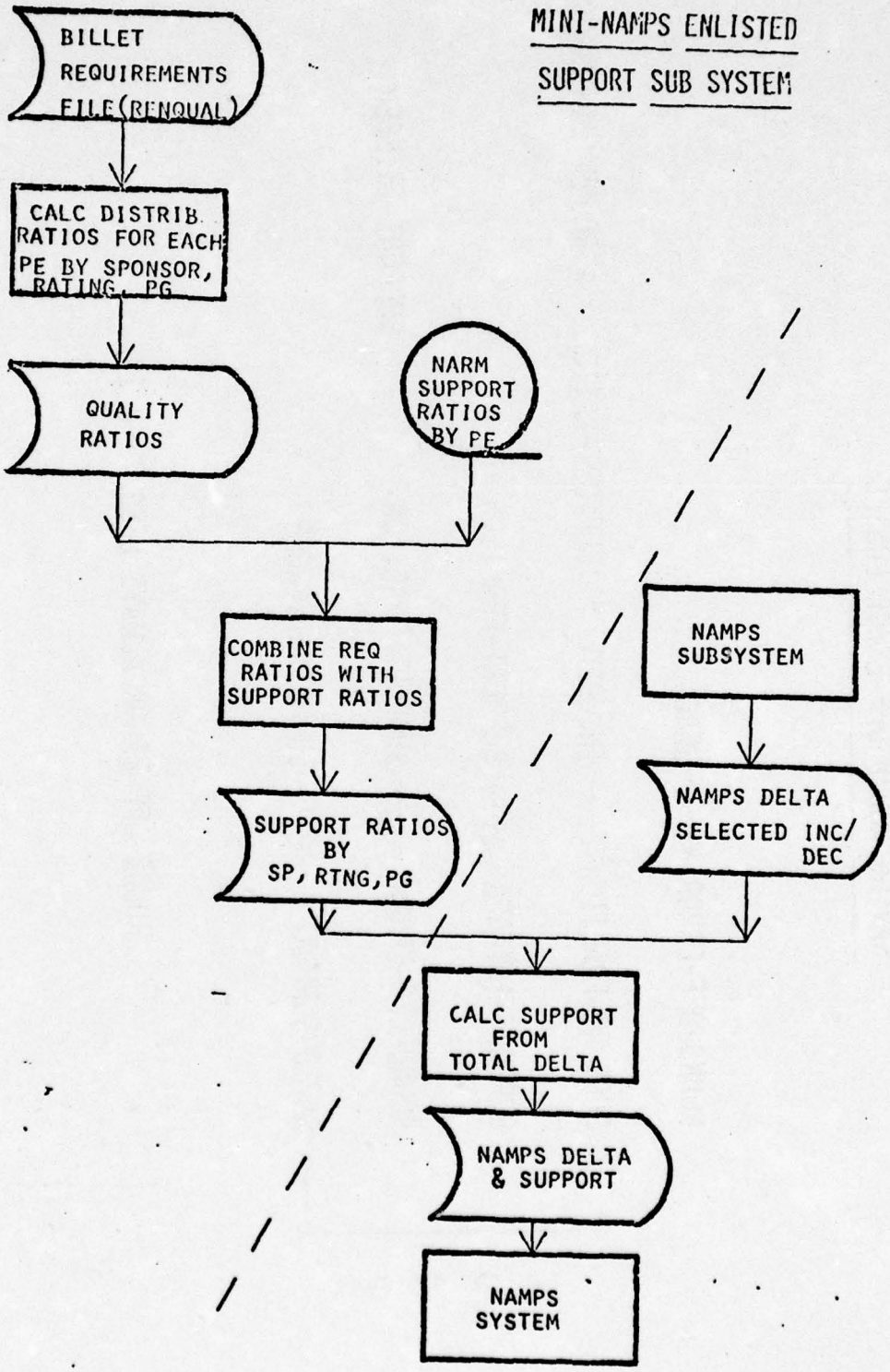

MINI-NAMPS ENLISTED
SUPPORT SUB SYSTEM
BILLET REQUIREMENTS FILE(RENQUAL)
CALC DISTRIB RATIOS FOR EACH PE BY SPONSOR, RATING, PG
QUALITY RATIOS
NARM SUPPORT RATIOS BY PE
COMBINE REQ RATIOS WITH SUPPORT RATIOS
SUPPORT RATIOS BY SP, RTNG, PG
NAMPS SUBSYSTEM
NAMPS DELTA SELECTED INC/DEC
CALC SUPPORT FROM TOTAL DELTA
NAMPS DELTA & SUPPORT
NAMPS SYSTEM

FIGURE 6

SAVING ROUND-OFF-ERROR LOSSES

ROUND-OFF-ERROR ← ZERO

LOOP

SUPPORT-FRACTION ← [INC-DEC * SUPPORT-RATIO] + ROUND-OFF-ERROR

SUPPORT-INTEGER ← SUPPORT-FRACTION

ROUND-OFF-ERROR ← SUPPORT-FRACTION - SUPPORT-INTEGER

SAVED-SUPPORT ← SUPPORT-INTEGER

ROUND-OFF-ERROR ALWAYS LESS THAN 1/2

FIGURE 7

APPENDIX E
SPONSOR BILLET DISTRIBUTION

Methodology for spreading ALL NAVY level QRP to individual Sponsors given MAPMIS distribution.*

N (BM)	=	ALL NAVY total BM's - Source MAPMIS Billet file.
N′(BM)	=	ALL NAVY total BM's - Source NAVCOSSACT's QRP
Si (BM)	=	Sponsor i's total BM's - Source MAPMIS Billet file.
S′i (BM)	=	Sponsor i's share of N′(BM) - Variable to be computed.
F	=	Fractional Billet
X	=	Numbers of Billets remaining after all integral solutions of S′i (BM) were subtracted from N′(BM)

$$\frac{Si\ (BM)}{N\ (BM)}\ (N'\ (BM)\ = \left[\overline{Si'\ (BM)}\right] + Fi$$

(An integer solution for S′i (BM) along with its associated Fi.)

$$N'(BM) - \sum_{i = 1, 26} S'i\ (BM) = X$$

(Integer solution for S′ i (BM) is subtracted from N′(BM) for all S′i (BM) - leaving a remainder of X.)

Def Fj: $Fj \geq Fj + 1,\ j = 1, 25$ (Fi's are sequenced from MAX to MIN)

$S'j\ (BM) = S\hat{j}\ (BM) + 1,\ j = 1, X$ (Remainder of X billets are distributed over S′i (BM)'s according to size of its associated Fi.)

*In this example, paygrade has been ignored for the sake of brevity and clearity.

APPENDIX F

PLOTTING SYSTEM - USER'S GUIDE

INDEX

		Page
1.0	PROGRAM DESCRIPTION	1
2.0	COMMANDS	1
2.1	BASE	1
2.2	LABL	2
2.3	TASK	3
2.4	CRIT	3
2.5	RTGP	4
2.6	DOIT	6
2.7	PRINT	7
2.8	END	7
3.0	TIME SHARING OPTION (TSO)	8
3.1	Summary	8
3.2	LOGON Procedure	8
3.3	Executing PLOTC	8
3.4	LOGOFF Procedure	9
4.0	SAMPLE SESSION	10
	ENCLOSURE A	13

1.0 PROGRAM DESCRIPTION

1.1 The PLOT Query is one of two interactive information retrieval modules and is a part of the POM-78 NAMPS Report and Display subsystem. Its function is two fold:

- The Plot Query allows the user to display plots using data from any of the available Bases of the POM-78 NAMPS System for the purpose of comparing the selected number of Billets and/or Men in the bases for specified Ratings/Paygrades, and Rating Groups.
- Additionally it allows the user, after he has specified 2 bases to query for those ratings/paygrades at which the absolute difference of the Billets and/or Men meet a specified criterion.

2.0 COMMANDS

2.1 BASE = BZXXY, BZXXY
BZXXY,BZXXY,BZXXY

where B = type of base
Z = start BASE ID
XX = Delta ID XX (01,02,03,.....35)
Y = Top-Six Ratio + End Strength Combination

Description:

The BASE command is used to specify which of the available bases are to be queried or used for plotting. The types of available bases are: Enlisted Manpower Requirements, Projected Personnel Inventory, and Officer Manpower Requirements. The number of bases in each type is determined by the number of what-if Delta's that have been applied. (OP-121 will always be aware of available bases.)

Keyword Specification:

No less than two or more than three keywords may be specified.
If the intended task is to query, only two bases may be specified.
If the intended task is to plot, two or three bases may be specified.

The type of base is indicated as follows:

E = Enlisted Manpower Requirement
I = Projected Personnel Inventory
O = Officer Manpower Requirement

The specific base of a particular type is indicated as follows:

Start BASE ID: (Z)

A = 1 February Billet File
B = 1 March Billet File
:
.

Delta ID: (XX)

00 = After PBD's, before SPP
01 = Base 0 with Delta 01 applied at authorized End Strength and Top-Six Ratio. (In the case of inventory, the inventory generated using Reg. BASE 1.)
02 = Base 0 with Delta 02 applied at authorized End Strength and Top-Six Ratio.
nn = The available number depends on the number of Delta's that have been applied.

Constraint ID: (Y)

0 = Unconstrained base
1 = Authorized End Strength and Top-Six Ratio
n = Alternate End Strength and Top-Six Ratio

Examples:

BASE = EA000, EA001, IA000

Use the Enlisted Manpower Requirement. (Unconstrained), Enlisted Manpower Requirement (at Authorized End Strength and Top-Six Ratio), and Projected Personnel Inventory - fed by EA001. Starting base was 1 February.

BASE = EA001, EA011

Use the Enlisted Manpower Requirements before any Delta has been applied, and the Enlisted Manpower Requirements to which Delta 01 has been added. Starting base was 1 February.

Special Considerations:

Exactly two (2) bases must be specified for TASK = QUERY. For TASK=PLOT, two (2) or three (3) bases may be specified.

2.2 LABL = A, A
A, A, A, where A = any printable character

Description:

The LABL command assigns the character that is to be associated with each base specified in the BASE command, and which will appear in the plots.

Keyword Specification:

as indicated

Example:

LABL = R, I

The character appearing in the plot for the first base specified, will be R; the character for the second base will be I.

Special Considerations:

It is suggested that this LABL command be issued immediately after the BASE command, thus avoiding confusion as to which plotted label represents which base.

2.3 TASK = QUERY
PLOT

Description:

The TASK = QUERY command specifies that the user wishes to query those bases specified in the BASE command.

The TASK = PLOT command specifies that the user wishes to display or print desired plots of manpower/inventory by fiscal year for those bases specified in the BASE command.

Keyword Specification:

as indicated

Example:

TASK = QUERY

Special Considerations:

If TASK = QUERY, then only two bases may be specified in the BASE command.

If TASK = PLOT, then two or three bases may be specified in the BASE command.

The CRIT command can only be used in conjunction with the TASK = QUERY command.

2.4 CRIT = YY, XX, ZZ
YY, XX, ZZ

YY = fiscal year
XX = %
ZZ = paygrade (optional)

Description:

The CRIT command specifies the criterion to be used to compare the difference of the two bases specified in the BASE command.

Keyword Specifications:

The first two keywords are always required; the third keyword is specified only if you wish to compare at a specific paygrade level. The fiscal year specified determines in which year the comparison will be done.

(i.e., If POM-YR = 78 then the valid YY values are:
77,78,79,80,81,82)

The % difference specifies how great the minimum difference must be between the ratings of the two bases specified by the BASE command in order to meet the selection criterion.

The valid range for XX is .01 through .99. The paygrade (ZZ) is specified only if the comparison is to be done at a specific paygrade. The valid range is 01 through 09 for officers, and 04 through 09 for Enlisted. If the paygrade keyword is not given, the comparison will be done at total rating level.

Examples:

CRIT = 78,.05

Select all ratings whose % difference is equal to or greater than .05. Compare in fiscal year 78.

CRIT = 80, .10, 05

Select all ratings whose % difference is equal to or greater than .10; compare at paygrade E5 only in fiscal year 80.

Special Considerations:

Paygrade must be 2 digit number in range 01-09

2.5 RTGP = DOD (XX)
OP1 (XX)
OGP (XX) SUM PG RAT(Y-Z)
LIST(RATING 1, RATING 2,... , NOSUM, NOPG, NORAT
(DESIGNATOR 1,...

Description:

The RTGP command specifies the particular ratings or designators to be plotted and the desired format for each plot. The RTGP command must be used in conjunction with the TASK = PLOT command

Keyword Specifications:

Primary Keywords -

DOD(XX) - RATING GROUPS used by PERS-2 where XX = specific rating group (2 digit number)

OP1(XX) - RATING GROUPS used by HEW where XX = specific rating group

OGP(XX) - DESIGNATOR GROUP where XX = specific designator group

NOTE: See Enclosure A for rating/designator groups

LIST (RATING 1, RATING 2, ...)
or
LIST (DESIGNATOR 1, DESIGNATOR 2, ...)

Specific list of ratings or designators to be plotted. A maximum of 10 ratings or designators may be specified.

Secondary Keywords:

SUM/NOSUM, PG/NOPG, RAT (Y-Z)/NORAT

SUM, PG - all ratings/designators specified by primary RTGP keyword will be aggregated before plotting. Plots will be printed by specific paygrade (default secondary keywords)

SUM, NOPG - all ratings/designators specified by primary keyword will be aggregated before plotting. Plot will be at total rating/designator level.

NOSUM, PG - plots will be by individual rating/designator and specific paygrade.

NOSUM, NOPG - plots will be by individual rating/designator at total paygrade levels.

RAT(Y-Z) - compute the ratio of paygrades Y-Z to the total rating/designator level. RAT(Y-Z) can only be used if PG is specified. Y and Z can be any 2 digits between 1 and 9 with Y less than Z.

NORAT - no ratio calculated (default)

Examples:

RTGP = LIST (AB, ABH), SUM, PG, RAT (4-7)
For the bases specified in the BASE command, aggregate ratings AB and ABH and display plots by paygrade. Calculate the ratio of paygrades 4-7 to total AB + ABH rating levles.

RTGP = DOD (10), NOSUM, NOPG

For the bases specified in the BASE command, display plots of all ratings in PERS-2 rating group 10 at total levels.

RTGP = LIST (1050, 1610, 1800, 2100), NOSUM, PG

Display plots of designator 1050, 1610, 1800, and 2100 individually by paygrade.

RTGP = LIST (BM), SUM, NOPG, RAT (7-9)

Display plot of rating BM at total level. Calculate the ratio of paygrades E7 through E9 to total levels, i.e., $\frac{E7 - E9}{E1 - E9}$

Special Considerations:

The RTGP keywords must be a continuous string of characters separated by commas. The first blank field will terminate the RTGP command. Ratings or designators in the LIST keyword must be enclosed in parentheses and separated by commas.

If BASE type is E or I then only primary keywords DOD( ), OP 1 ( ) and LIST (RATING 1,...) are applicable.

If BASE type is O then only primary keywords OGP ( ), and LIST (DESIGNATOR 1, ...) are applicable.

A maximum of 10 ratings or designators may be used with the LIST primary keyword.

2.6 DOIT

Description:

DOIT causes execution of specified TASK (PLOT or QUERY) on defined BASES.

Keyword Specification:

None

Special Considerations:

If TASK = QUERY, then the following information must be supplied before execution of the DOIT command:

TASK = QUERY
BASE =BZXXY, BZXXY
CRIT = YY, XX, ZZ (where ZZ is optional)

If TASK = PLOT, then the following must be supplied:

TASK = PLOT
BASE = BZXXY, BZXXY, BZXXY
LABL = 1, 2, 3 (any two or three characters)
RTGP = (RTGP information)

2.7 PRINT

Description:

If TASK = PLOTS then PRINT causes same action as DOIT, except that the results will be printed off-line (at NIH)

Keyword Specification:

None

Example:

PRINT

Special Considerations:

Is only valid if TASK = PLOT.

2.8 END

Description:

Returns program control to the executive routine. All selected plots specified by PRINT commands will be printed off-line at NIH (a job number will appear after the END OF SESSION statement)

Keyword Specification:

None

Example:

END

Special Considerations:

None

3.0 Time Sharing Option (TSO)

3.1 Summary

The interactive programs within the MINI-NAMPS System are executed using the Time Sharing Option of OS. In conversational mode, execution starts as soon as you send the instruction from the terminal, and results are printed at the terminal as soon as the program produces them. This section describes the commands necessary to:

- Identify yourself to the system
- Define characteristics of the session
- End your terminal session.

3.2 LOGON Procedure

a) The first thing you must do to begin a terminal session is to establish communication with the NIH computer facilities. This is dependent on the type of terminal and coupling system available for the user. Since telephone numbers change periodically, it is suggested that users refer to recent issues of the NIH publication INTERFACE or call the NIH Computer Center for current telephone numbers.

b) Once your terminal has received a signal, type LOGON followed by identification information in the following format:

LOGON	aaaaiii/ttt/bbb	REGION (nnn)
where:	aaaa	is your account code
	iii	are your initials
	ttt	is the terminal identification number
	bbb	is the account box number
	nnn	is the core storage required (300 is required to execute PLOTC and DELTAQ)

after typing in the appropriate information hit the carriage return button on your terminal.

c) The system will prompt you for your keyword on the next line as follows:

KEYWORD? key

where: key is your designated keyword

after typing your keyword, hit the carriage return button.

3.3 Executing PLOTC

To execute the interactive program PLOTC simply type EXEC PLOTC and hit carriage return. The program will execute and commands should be input according to the formats described in the users' guide.

3.4 LOGOFF Procedure

End your terminal session by typing LOGOFF followed by a carriage return. The command will display billing information for the session; display date, time, and length of session; and disconnect your terminal from TSO.

4.0 SAMPLE SESSION

```
IKJ54012A ENTER LOGON -

logon weu2gzc/n88/386 region(250)
KEYWORD? ■■■
WEU2GZC LOGON IN PROGRESS AT 09:56:07 ON MAY 13, 1976
NIH/DCRT/CCB **TSO**
mvs testing available for free testing until 5.00 pm. today
job notification as described in interface 62 now effective
TSO LINE 180
READY
exec plotc


POM - 78 NAMPS PLOT SYSTEM

SESSION STARTED: 09:59    05/13/76

NARRATIVE?: no


BASES AVAILABLE
OFFICER:    OA000
ENLISTED:   EA001 EA002 EA000 EA010 EA012 IA002 IA012

?: task=query


?: base=ea002,ia002


?: crit=78,.10


?: doit

SELECTED RATINGS:

ADR    AV     BR     CTI    CU     EO     EW     FTB    GMM    MA     MU     NC

PI     SM     TD

?: task=plot


?: base=ea002,ia002


?: labl=e,i


?: rtgp=list(gmm),pg,rat(5-8)
```

```
E   EA002    PROJECTED ENLISTED AUTHORIZATIONS (NAMPS REPORT 21.03)
I   IA002    PROJECTED ENLISTED PERSONNEL INVENTORY

SUM: ALL RATINGS/DESIGNATORS IN
     RTGP=LIST - GMM

PAYGRADE: 04

   M    406
   E    400
   N    394                I
   /    388
   B    382                         I
   I    376                                  *        E        E
   L    370                                                   I
   L    364                         E
   E    358        I       E
   T    352                                          I
   S    346        E
        340
          ---------------------------------------------------------
                 77        78        79        80        81        82

GO?: yes

SUM: ALL RATINGS/DESIGNATORS IN
     RTGP=LIST - GMM

PAYGRADE: 05

   M    420                                  E        E        *
   E    390        E       E       E        I        I
   N    360                         I
   /    330
   B    300
   I    270
   L    240                I
   L    210
   E    180
   T    150
   S    120
         90        I
          ---------------------------------------------------------
                 77        78        79        80        81        82

GO?: no

*****************************
*                           *
*  RATIO(5-8) =    69.000%  *
*                           *
*****************************
```

```
?: rtgp=list(9999),nopg,rat(4-9)

?: doit


E   EA002    PROJECTED ENLISTED AUTHORIZATIONS (NAMPS REPORT 21.03)
I   IA002    PROJECTED ENLISTED PERSONNEL INVENTORY

SUM: ALL RATINGS/DESIGNATORS IN
     RTGP=LIST - 9999

PAYGRADE: 1 - 9

   M 483500
   E 482600                                                  *        *
   N 481700
   / 480800
   B 479900
   I 479000                                        *
   L 478100
   L 477200
   E 476300                   *
   T 475400         *
   S 474500
     473600                              *
            ----------------------------------------------------------
                  77        78        79        80        81        82


******************************
*                            *
*  RATIO(4-9) =     61.500%  *
*                            *
******************************

?: print


?: end


SESSION ENDED: 10:05    05/13/76 ******
 JOB  663  GZCPLOT  SUBMITTED
READY
logoff
CHARGE = $6.09
CPU TIME = 2.31 SECONDS (MODEL 168)
ELAPSED TIME = 00:10:19
I/O COUNT = 2
REGION = 172K
WEU2GZC LOGGED OFF TSO AT 10:06:39 ON MAY 13, 1976+
```

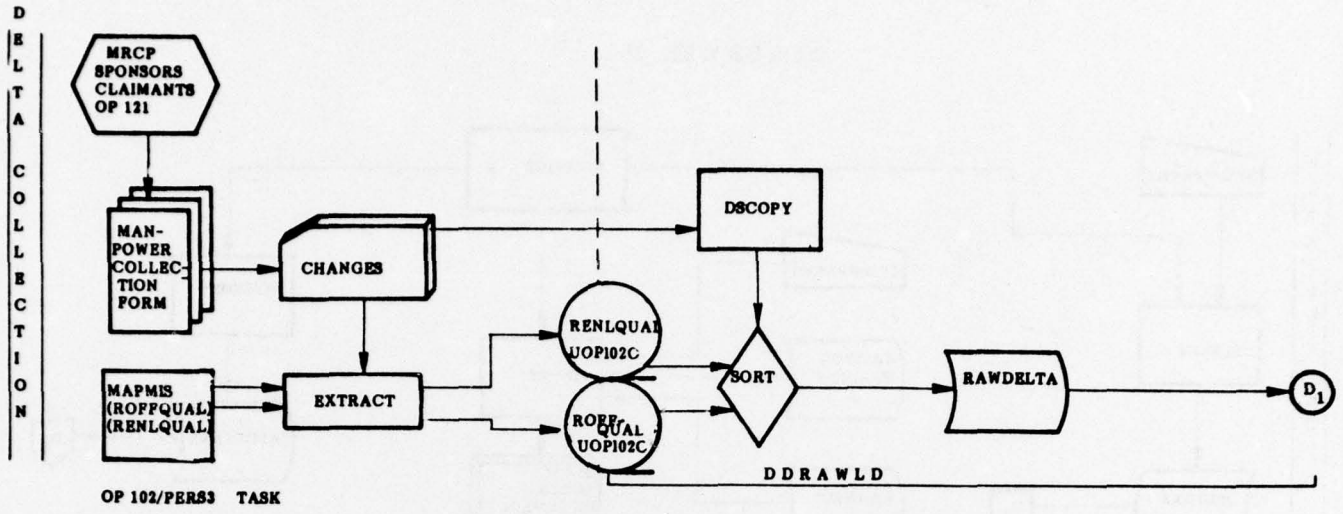
ENCLOSURE A

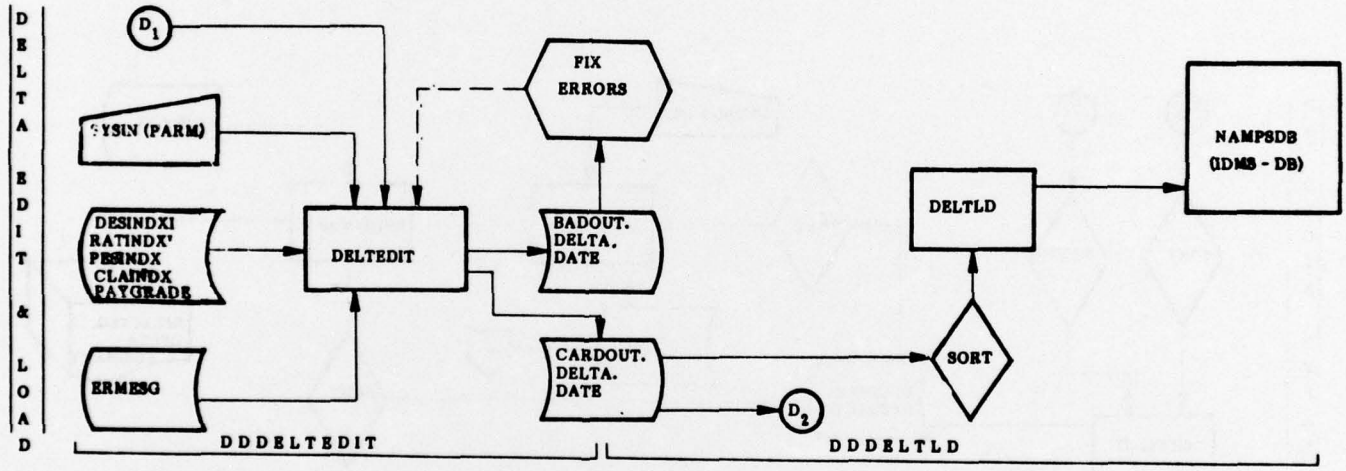
GROUP	TITLE
DOD (00)	Area 0 - Gun Crew & Seamanship Specialist
DOD (01)	Area 1 - Electronic Equip Repairman
DOD (02)	Area 2 - Communications & Intell Spec
DOD (03)	Area 3 - Medical & Dental Specialists
DOD (04)	Area 4 - Other Tech & Allied Specialists
DOD (05)	Area 5 - Administrative Spec & Clerks
DOD (06)	Area 6 - Elec/Mech Equip. Repairmen
DOD (07)	Area 7 - Craftman
DOD (08)	Area 8 - Service & Supply Handlers
DOD (09)	Area 9 - Non Designated
OP1 (01)	Group I - Deck
OP1 (02)	Group II - Ordnance
OP1 (03)	Group III - Electronics
OP1 (04)	Group IV - Precision Equipment
OP1 (05)	Group V - Administration and Clerical
OP1 (06)	Group VI - Miscellaneous
OP1 (07)	Group VII - Engineering and Hull
OP1 (08)	Group VIII - Construction
OP1 (09)	Group IX - Aviation
OP1 (10)	Group X - Medical
OP1 (11)	Group XI - Dental
OP1 (12)	Apprenticeships
OGP (13)	Unrestricted Line
OGP (14)	Restricted Line
OGP (15)	Unrestricted Line-Perspective Staffcorps
OGP (16)	Staff Corps
OGP (17)	Lim Dty Off - Line (Surface)
OGP (18)	Lim Dty Off - Line (Submarine)
OGP (19)	Lim Dty Off - Line (Aviation)
OGP (20)	Lim Dty Off - Line (General)
OGP (21)	Lim Dty Off - Staff Corps
OGP (22)	Warrant Off - Line (Surface)
OGP (23)	Warrant Off - Line (Submarine)
OGP (24)	Warrant Off - Line (Aviation)
OGP (25)	Warrant Off - Line (General)
OGP (26)	Warrant Off - Staff Corps

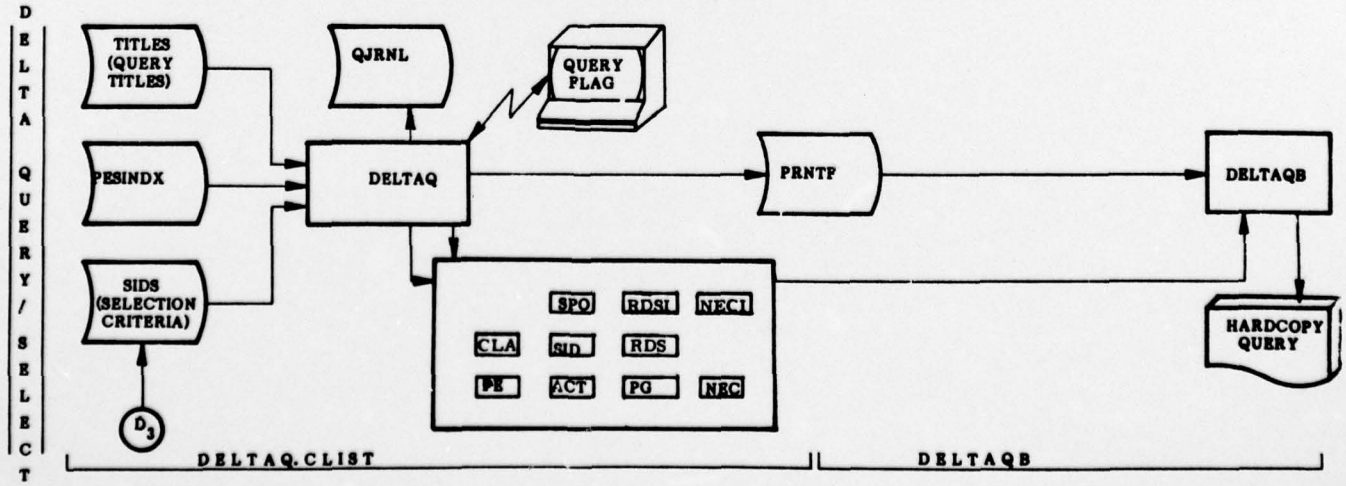
APPENDIX G

DETAILED SYSTEM FLOW

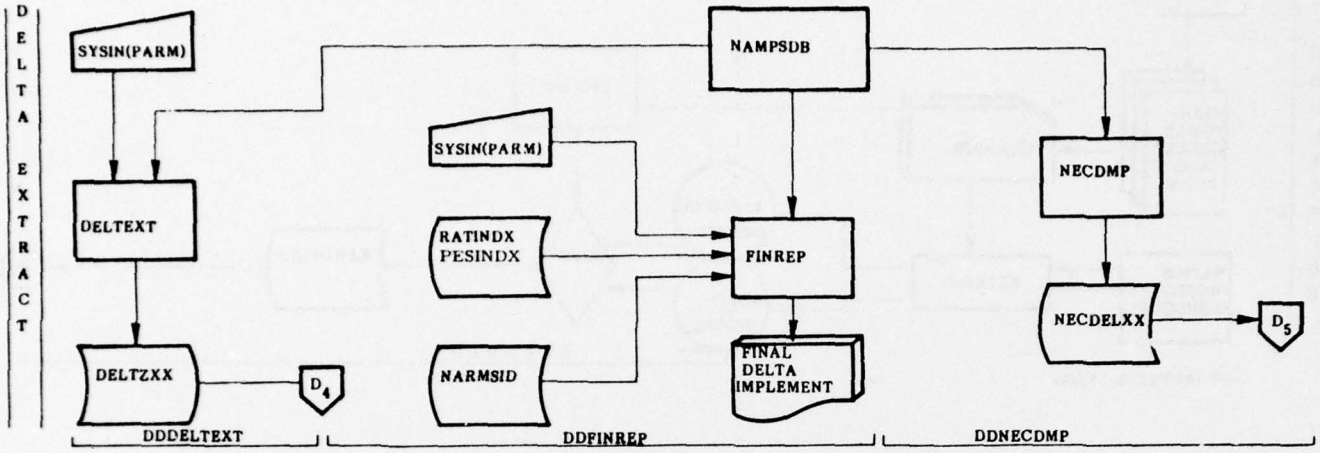
DELTA SUBSYSTEM I

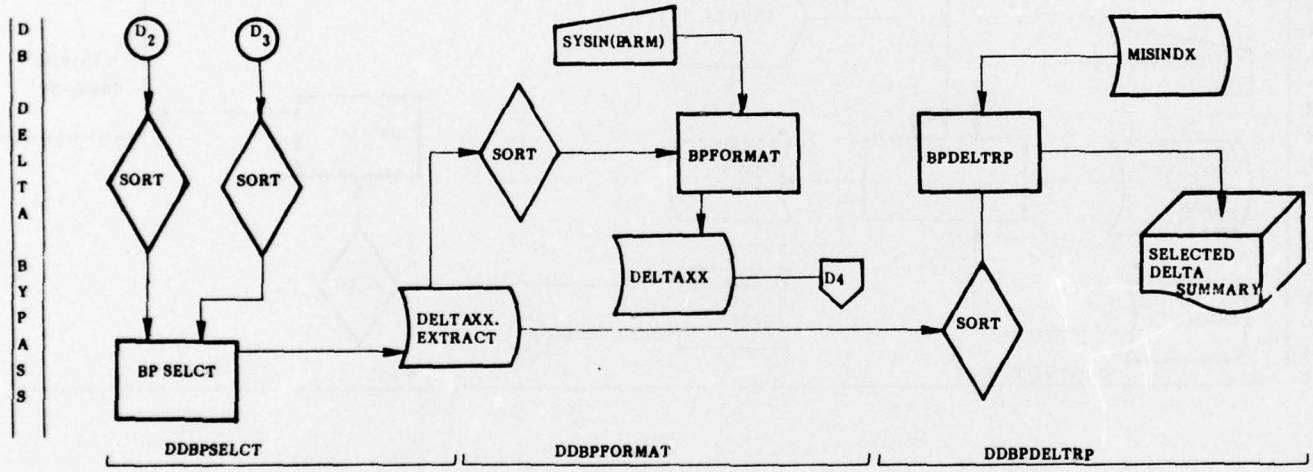




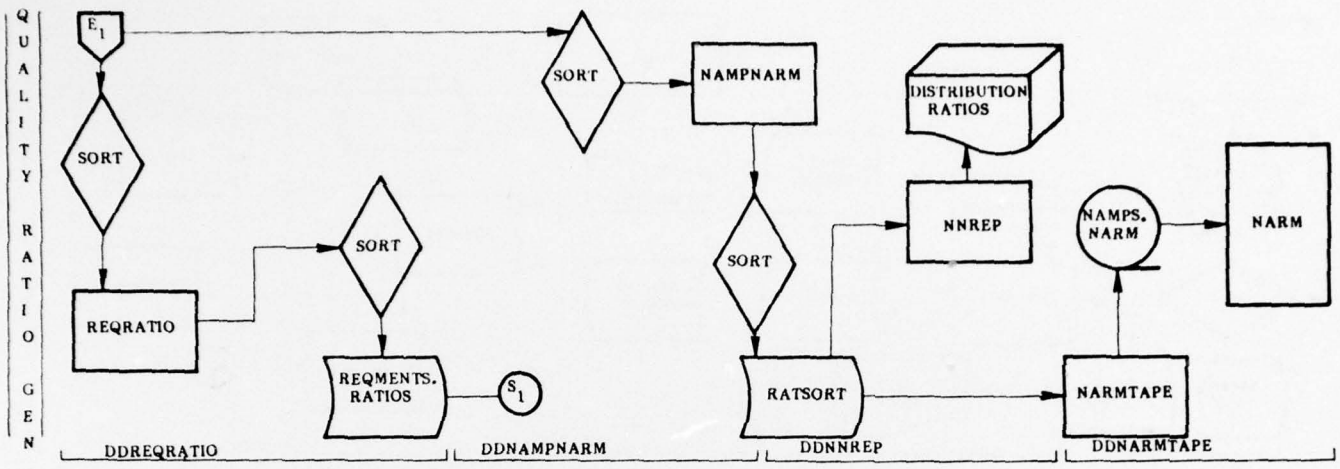


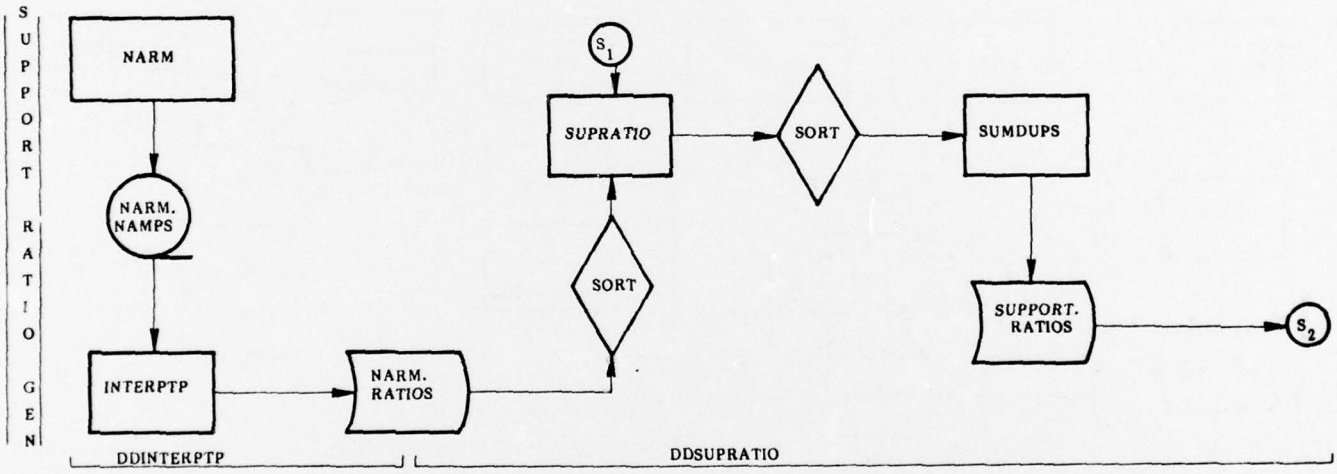
DELTA SUBSYSTEM II

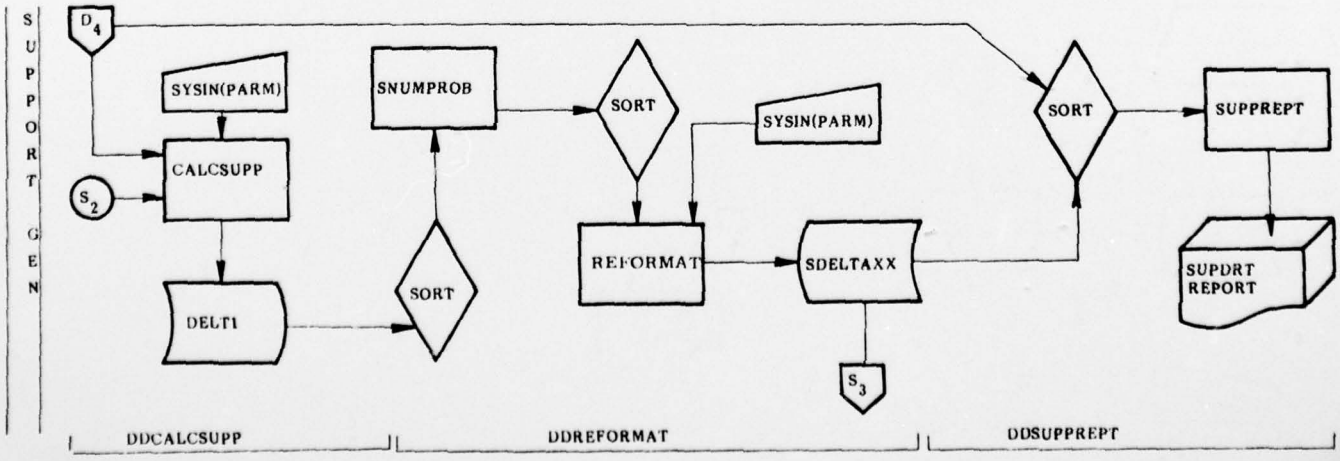




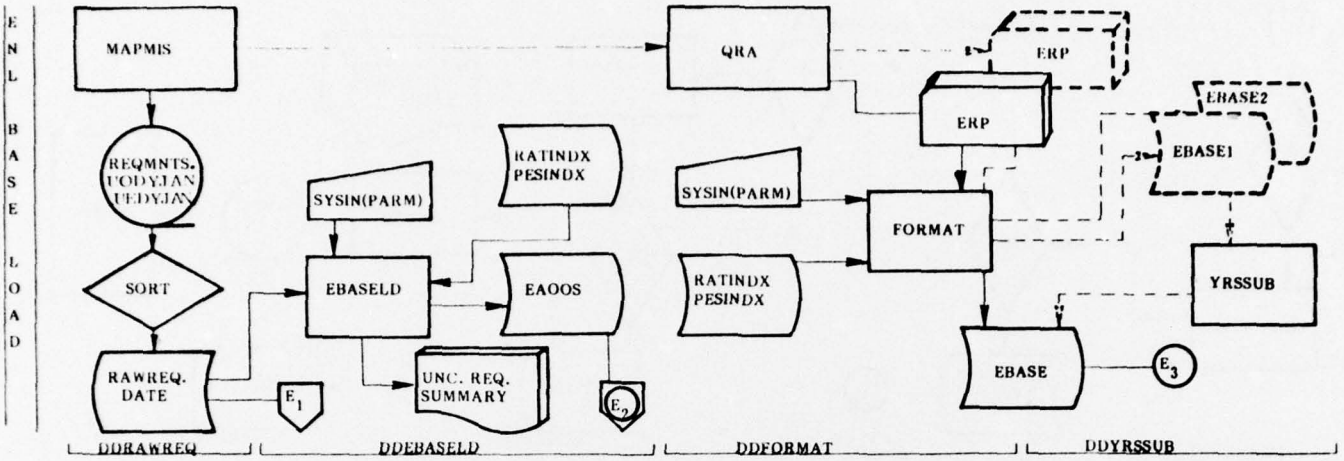
SUPPORT SUB SYSTEM

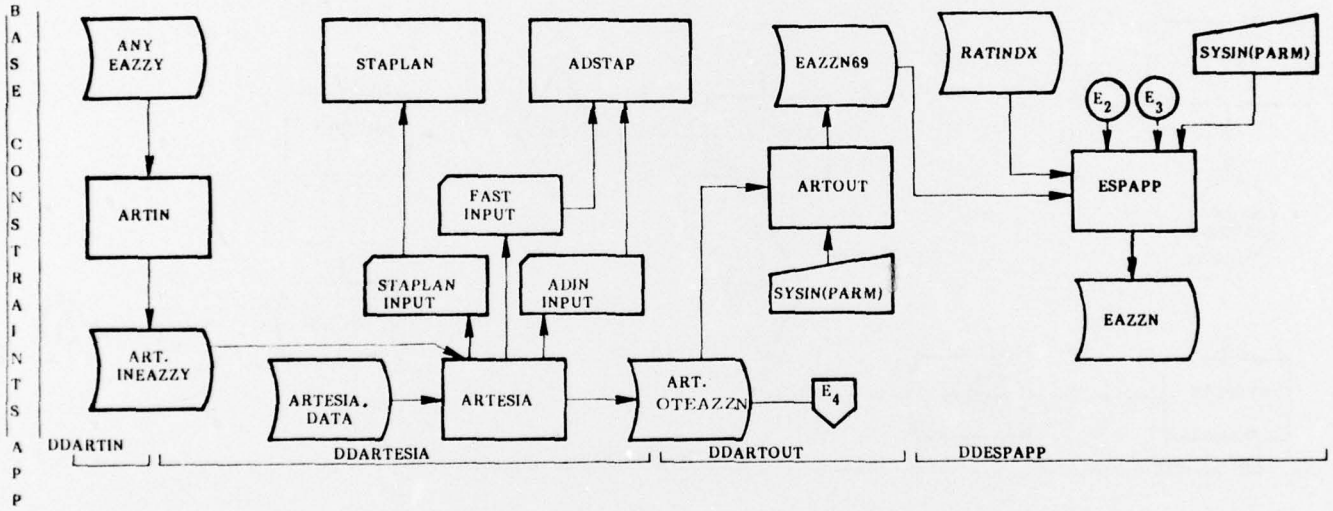


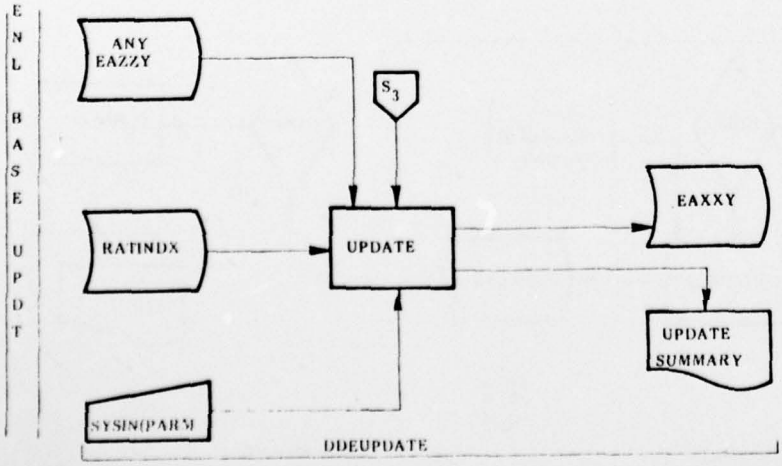




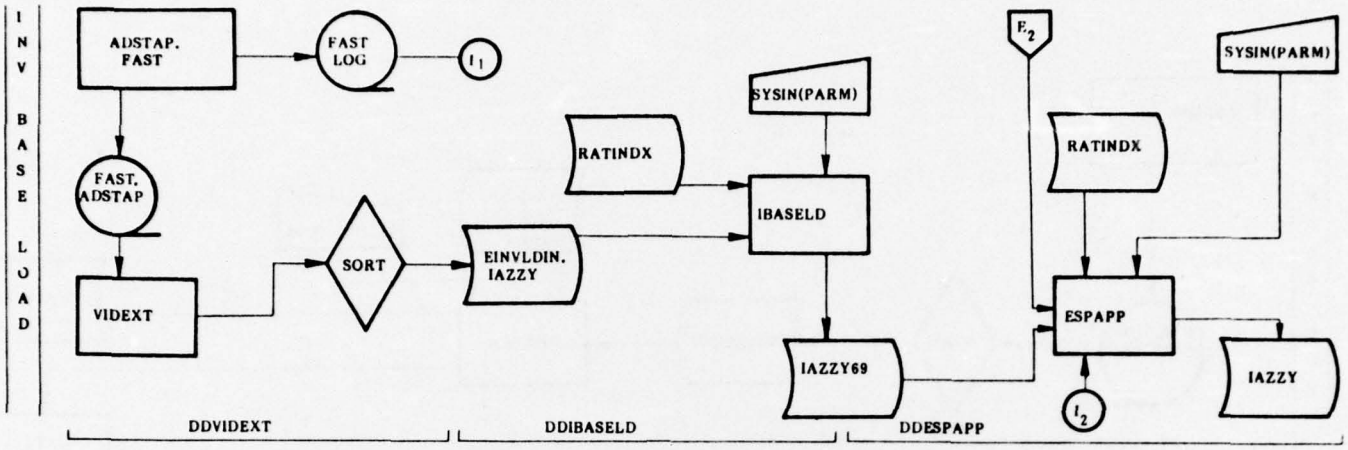
ENLISTED REQ. SUBSYSTEM

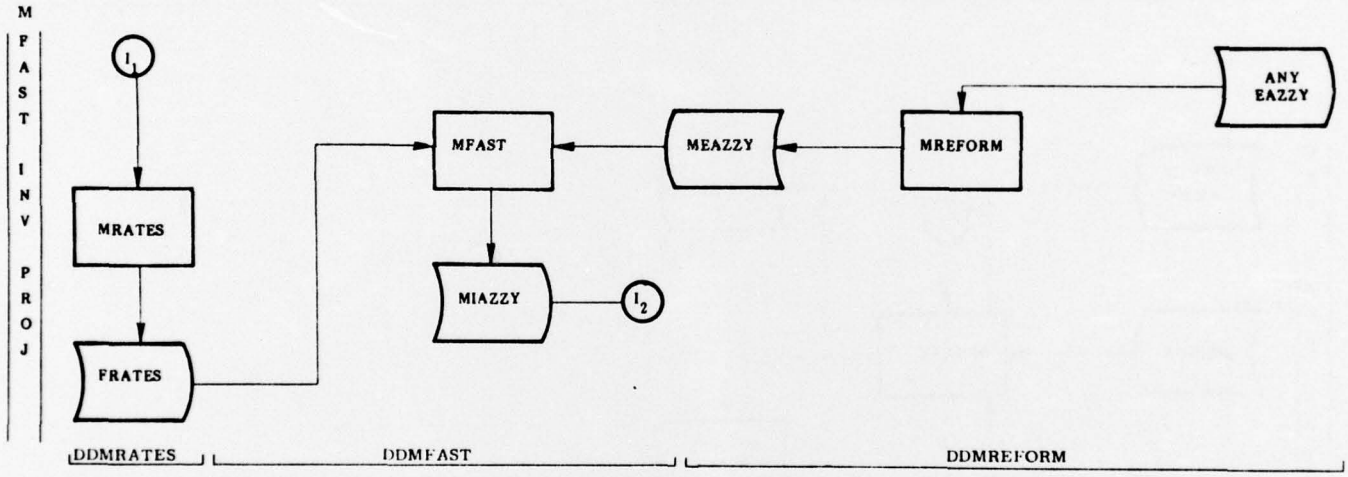




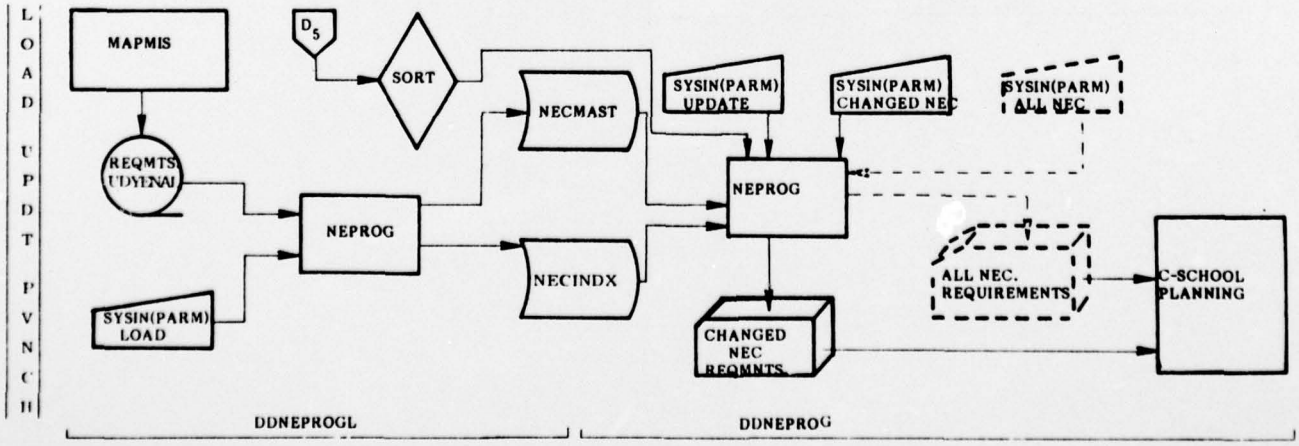


ENLISTED INV. SUBSYSTEM

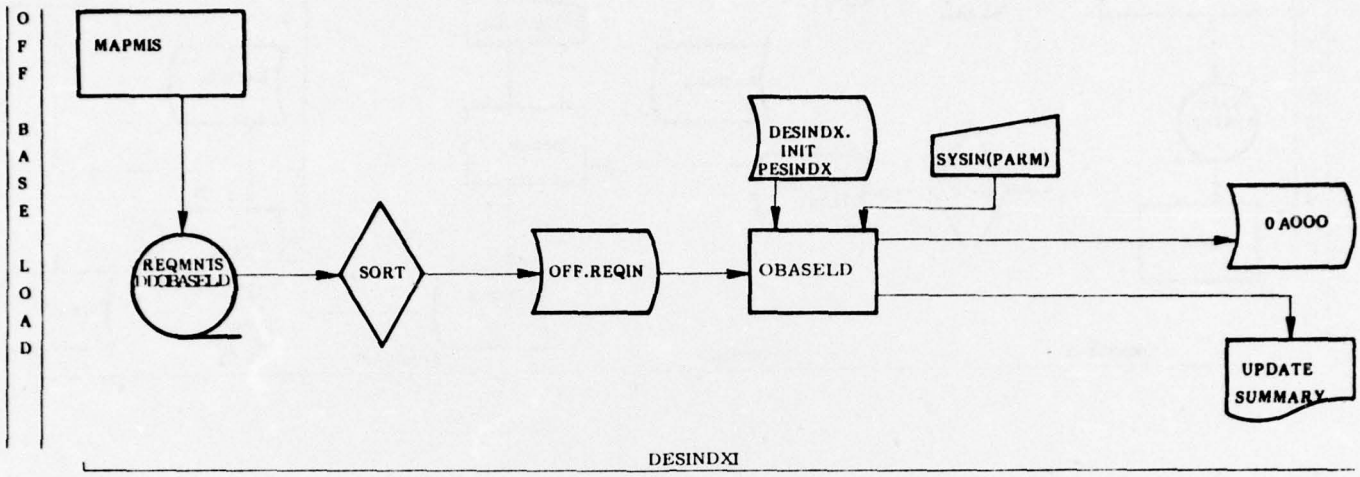


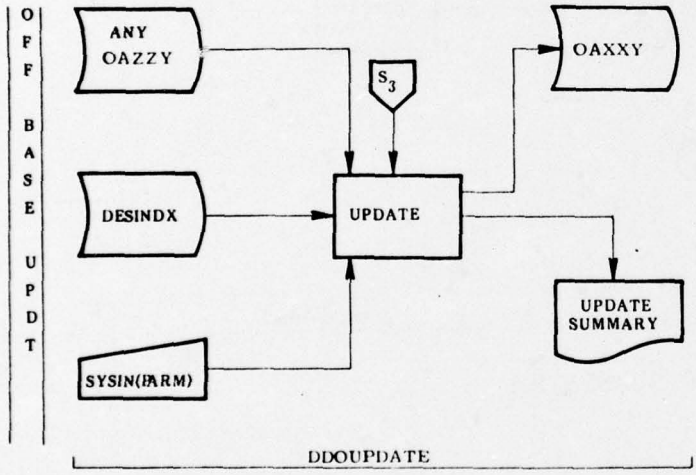
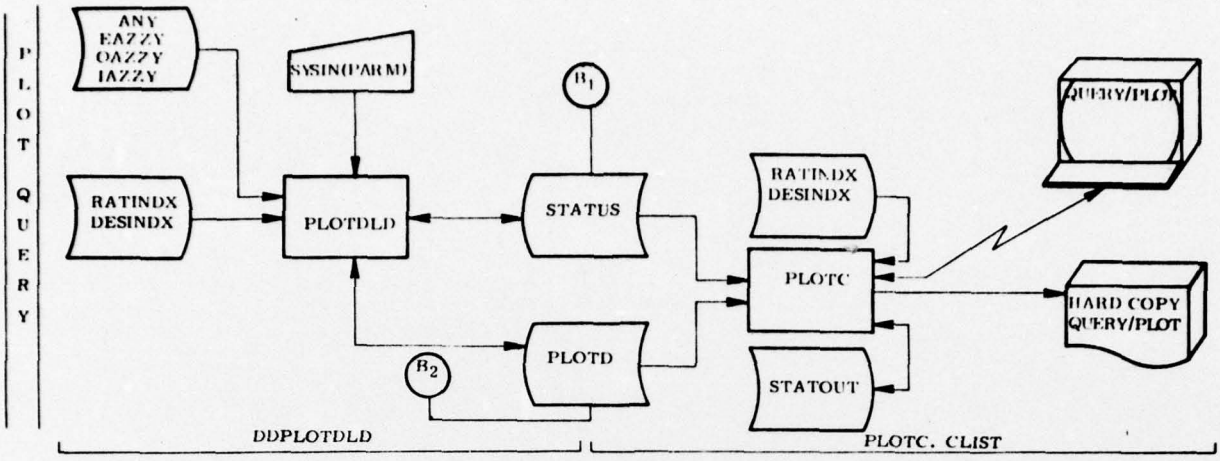
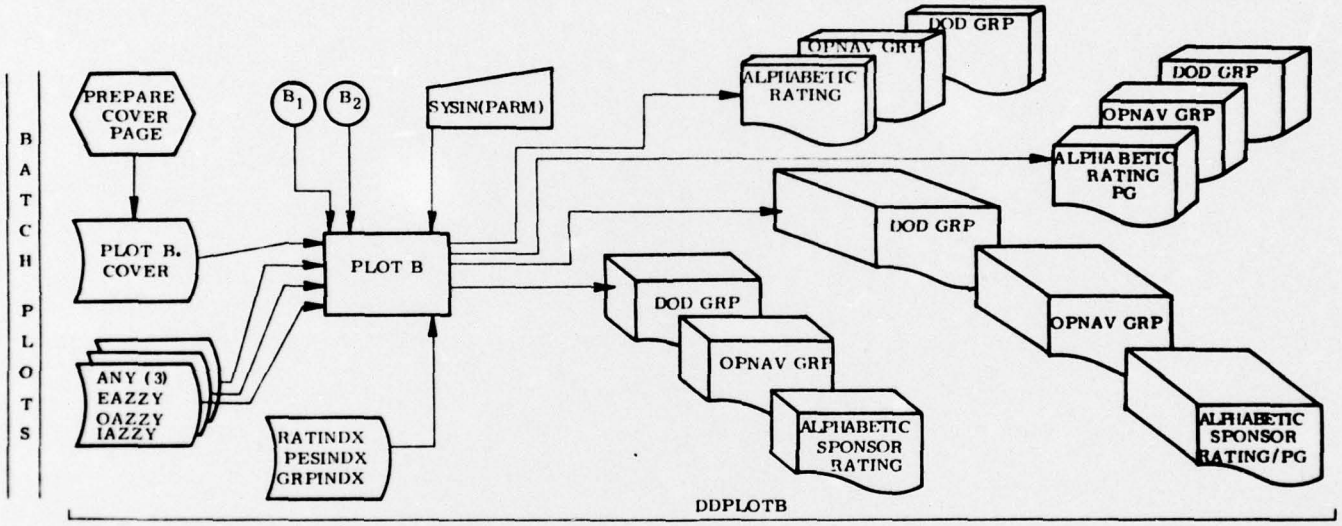
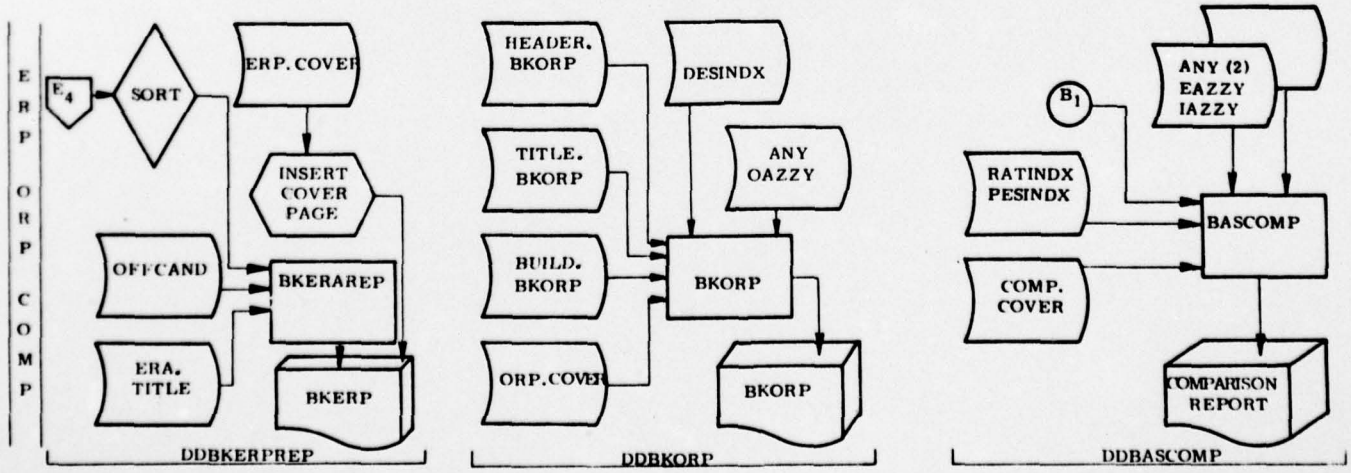


ENLISTED NEC SUBSYSTEM



OFFICER REQ. SUBSYSTEM





BASE REPORTS DISPLAY